

SV1000 IGUANA ACTIVE TRACKING SURVEILLANCE SYSTEM USER'S MANUAL

Version 2.2 (2009 April)

Release Note

V2.2

New: Add password protection by channel for Remote Preview.

Improved the remote preview image resolution from 320x240 to 720x240(NTSC), or 720x288(PAL).

Add the default setting mark(*).

V2.16

New: Support CMS functions

Improved tracking at distance, multiple targets

V2.15

New: USB key-pro is used to replace Access Code

New: Camera Module setup simplified

V2.1

New: Independent Replayer, support 1024x768, 1280x1024

New: OEM Logo available

New: Add password protection for Remote Preview over Internet

Improve preview resolution from 320x240 to 720x480(NTSC), or 720x576(PAL)

New: Auto preview resolution to meet CPU performance

V2.0

New: Once a day Motor Mechanism Accuracy test

New: Smart Search (five times search)

New: Manual Tracking (include Start/Stop Tracking)

New: Default camera position (15 seconds back to default position)

New: Remote Access (2 frames per second)

Improved: No masking Image on main screen

New: Independent Replay

V1.26

New: Turbo Preview 720x480(NTSC), 720x576(PAL)(only display 120 seconds)

V1.25

New: Support PAL(352x288 , 720x288 , 720x576)

Fixed: Database use English Access 2003 (for multi-language)

Fixed: Record function enable peak bitrate

V1.2

New: Support Multi-language (Chinese, English, and Japan)

New: Event list (1000 records)

New: Detail log file

New: Record Status/ quality selection setup

New: Trackstatus setup (mask, priority)

New: Record Schedule / reboot setup

New: I/O & Alarm setup

New: Account management

New: System setup (language selection/watchdog setting)

New: Calibration mechanism

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1 INTRODUCTION OF PRODUCT

Sunvision Scientific Inc. has developed a next generation, revolutionary active tracking surveillance system called the IGUANA. The IGUANA system has combined the best functions of both the panoramic lense cameras and the telescopic lense cameras.

Motion detection has been used in many places in the market now a day. When a moving target is detected, current security cameras can only sound the alarm, and passively wait for a security guard, if any are available, to take the proper action. The IGUANA system can actively track down the moving target and take the close up images of the target. The IGUANA system can also use masking techniques that allow you to set where to detect within the panoramic view. The IGUANA system has dramatically improved the effectiveness of surveillance systems to meet the ever increasing demands of the security world.

An embedded IR module can offer you clear vision at night. No matter whether it is day or night, your home and your property are safe and secure under the watchful eyes of the IGUANA. The embedded 8 GPIO will offer you sufficient control for alarms, or other remote controls. Automatic recording, preview, high speed searching, and event list are also standard.

2 SPECIFICATION

2.1 System Configuration

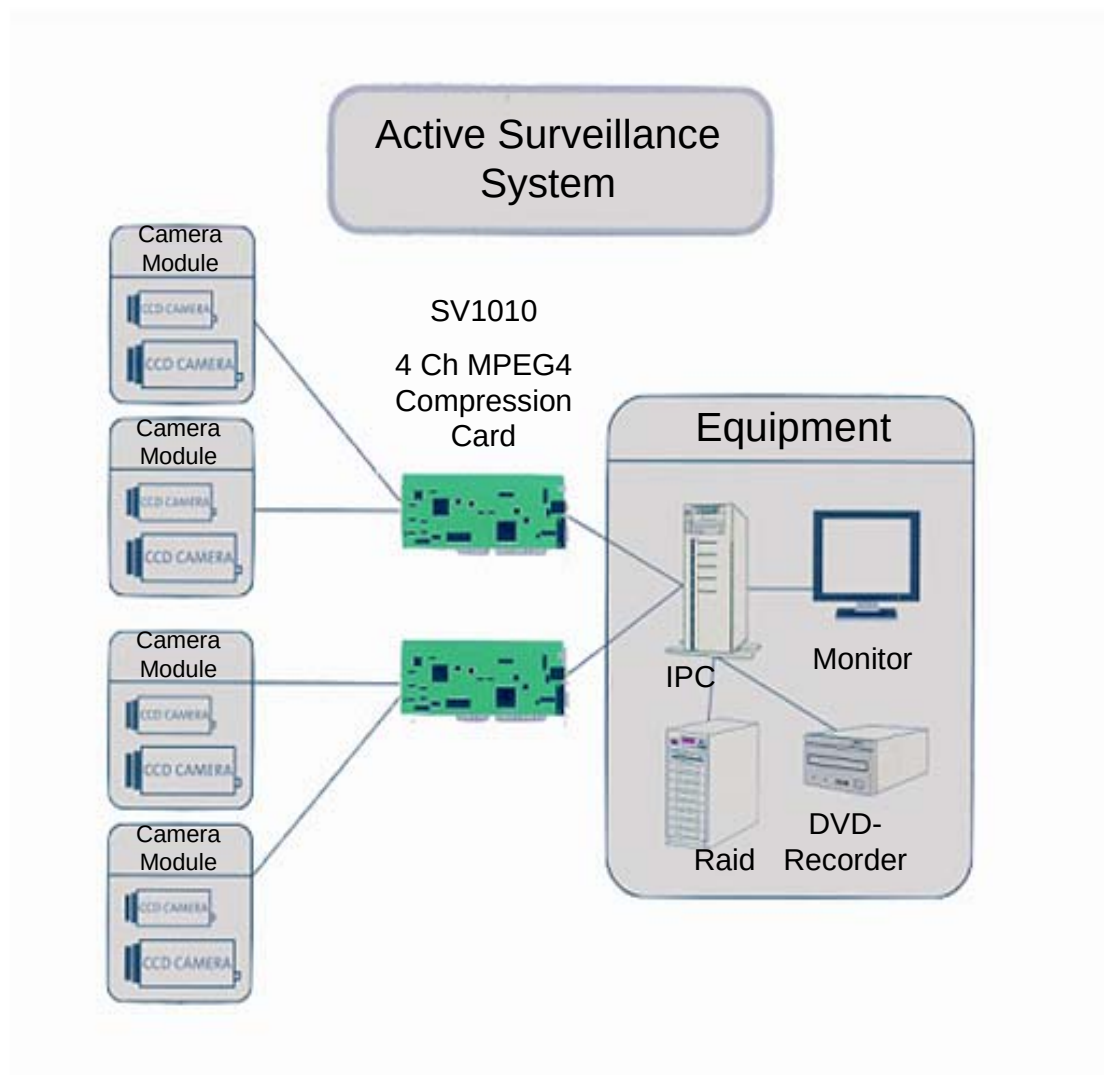


FIG. 2.1

2.2 Specifications

SV101 IGUANA Active Tracking Surveillance System	
●	Patented two-camera design, one for panoramic views and the other for target detailed views
●	Automatic high speed tracking of moving targets with optical zoom (x3~~x10)
●	Target location prediction
●	Target size Adjustability
●	Tracking Sensitivity Adjustability
●	Highly flexible mask and 3 zone priority capability
●	Scheduled Recording
●	All weather application with built in heater and optional high powered IR
●	4 Camera modules max. per system
●	Watchdog, resets the PC after a programmable inactivity time-out.
●	4-CH MPEG4 real Time Hardware Compression

SV1010 4 Ch MPEG4 Hardware Real-Time Video Compression Card	
Real-time Video Recording	NTSC (720 X 480) @ 30fps per Channel, 4-CH total 120fps MPEG4 Hardware Compression PAL(720X576)@25fps per Channel, 4-CH total 100fps MPEG4 Hardware Compression
Real-time Previews	NTSC (720 X 480) @ 30fps per Channel, 4-CH total 120fps PAL (720 X 576) @ 25fps per Channel, 4-CH total 100fps
I/O Interface	GPIO TTL compatible, 4 inputs, 4 outputs
Watchdog	Hardware watchdog, resets the PC after a programmable inactivity time-out.
Serial Port	RS-485 serial port
Form Factor	32bit/ 33MHz PCI bus half size board.

SV1018 IGUANA Active Tracking Camera Module	
Number of CCD Cameras	2 CCD per module, one with fixed lenses, the other with 3x ~ 10x zoom lenses
Tracking Speed	Capable to change tracked targets 5 times/sec and track multiple targets
Wide Angle Lenses Cameras Angle of Views	75 ° x 56° or 53 ° x 39 ° switch selectable
Zoom ratio	3~10X
Telescopic Lenses	5~50mm zoom lenses
IR module (optional)	Telescopic Camera uses IR Lenses, small focus shift under infrared light
Tracking Mechanism	Using Mirror Reflection Mechanism
Anti-Reflective Coatings	Front glass with Anti-Reflective Coatings
Effective Surveillance Area	75 ° x 20 Meter (66 ft.) radius (able to identify a person)
IR module	High power infrared LED (λ 850nm, P_{eff} 6W)
IR module circuit board	Aluminum PCB for fast heat dissipation
Heater	PTC Heat Conductor
Case Construction	Aluminum Casting with weather-proof coating
Operation Temperature	--20°C ~50°C (-4°F~122°F)
Operating humidity	10%~75% RH
Storage temperature	-40°C ~60°C (-40°F~140°F)
Environmental Protection	IP65
Dimension	442(W) X 140 (H) X 277(D) mm (17.4 x 5.5 x 8.9 Inches)
Weight	6.2KG (13.7 lbs)
Power Supply	AC 100~240V or AC24V only

3 How to use software

3.1 Display : Main Display



FIG. 3.1.1

- A. Event list
List the time of last 12 events. Replay will start after an event has been selected
- B.  : Stop
Shows camera is not recording
- C.  : Schedule
Shows the recording schedule of camera
- D.  : Record
Shows camera is recording
- E.  : Tracking status
- F. System message
Shows the current time, date and the time of the oldest file
- G.  : Single View
Shows single view of one camera
- H.  : Quad Wide View 4

If only one Video Card is installed, this function will be disabled.
When two Video Cards are installed, this function shows all 4 wide angle cameras views

I.  : Wide, Telescope View

If only one SV1010Video Card is installed, this function will show 4 views of two camera modules with wide angle and telescopic views.

If two Video Cards are installed, after  is pressed. 4 wide angle views will be displayed. Then you can select 2 out of 4 wide angle views of your choice.



FIG. 3.1.2

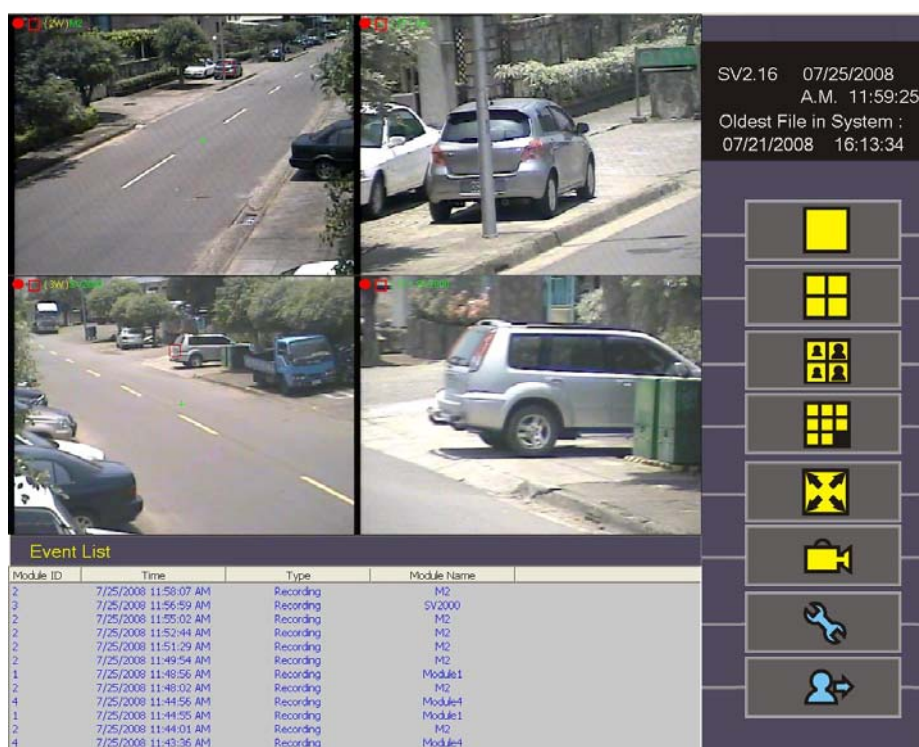


FIG3.1.3

- J.  : 8 View
Shows 8 views with the panoramic and telescopic lenses of 4 camera modules
- K.  : Full Screen Mode
Shows view in full screen
- L.  : Replay
Go to replay mode
- M.  : Tool
Go to function settings and camera module adjustments
- N.  : Exit

3.2



Replay

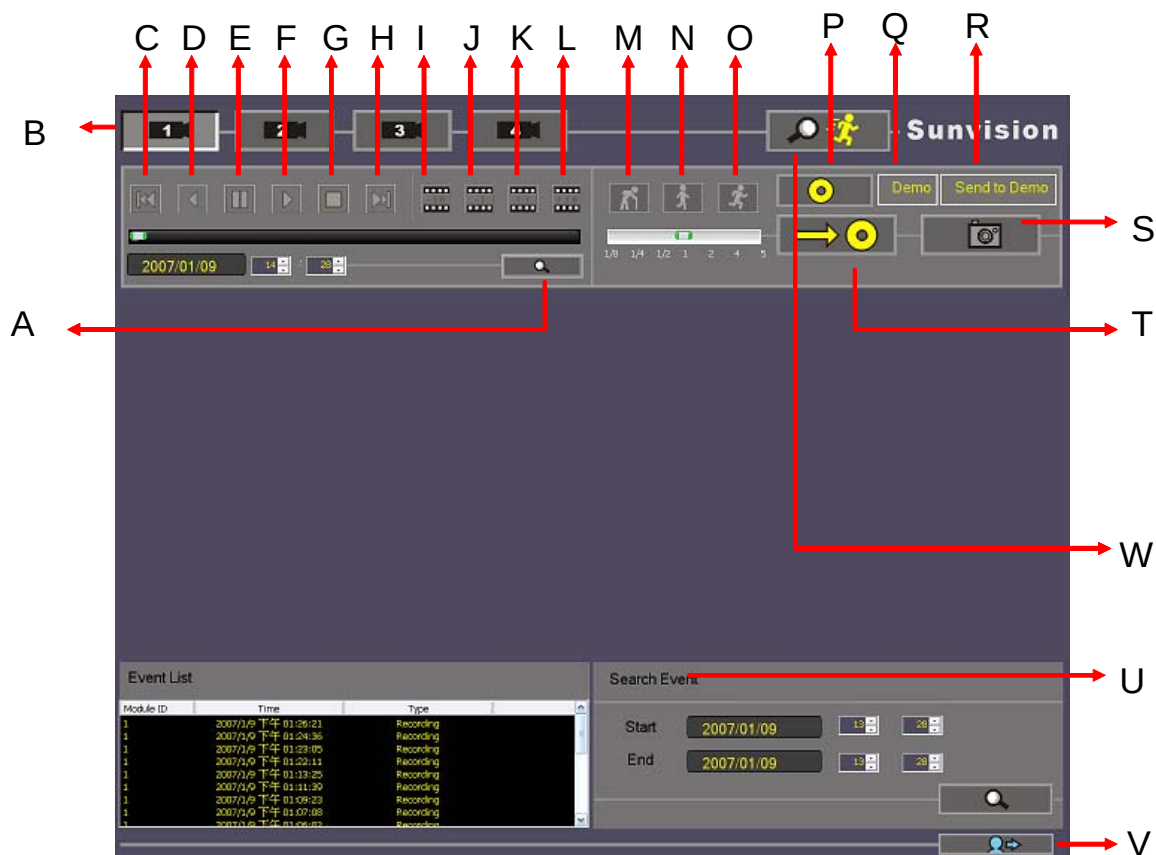


FIG. 3.2.1

On the main display, please select  to go to REPLAY mode

- A.  : Search
Search events by recorded time
- B.  : Camera selection
Please choose the camera module that you want to replay
- C.  : Last File
Replay last file
- D.  : Reverse
Reverse replay
- E.  : Pause
Pause replay

- F.  : Play
Replay the recorded file
- G.  : Stop
Stop replay
- H.  : Next File
Replay next file
- I.  : 10 Frames Backward
Go back 10 frames. While held, it will go back continuously.
- J.  : 1 Frame Backward
Go back 1 frame. While held, it will go back continuously.
- K.  : 1 Frame Forward
Forward 1 frame. While held, it will go forward continuously
- L.  : 10 Frames Forward
Forward 10 frames. While held, it will go forward continuously.
- M.  : Slower
Reduce the replay speed
- N.  : Normal
Replay at normal speed
- O.  : Faster
Increase the replay speed
- P.  : Replay the Saved files
Replay the saved video files in C:\SunVision\Video\
- Q. Demo
Replay the Demo files in C:\SunVision\Demo\
- R. Save as a demo
Save current files in C:\SunVision\Demo
- S.  : Snap
Save the current image in C:\SunVision\Picture



: Save Video

Save the current video files to C:\Sunvision\Video\



Search Event

Please select 1. A Camera Module, 2. The start and finish time.
Then push to find the events within the time period.



: Save & Exit

Exit replay



Smart Search: Smart Search will search for events within the selected area at 5 times speed.

3.2.2  : SNAP

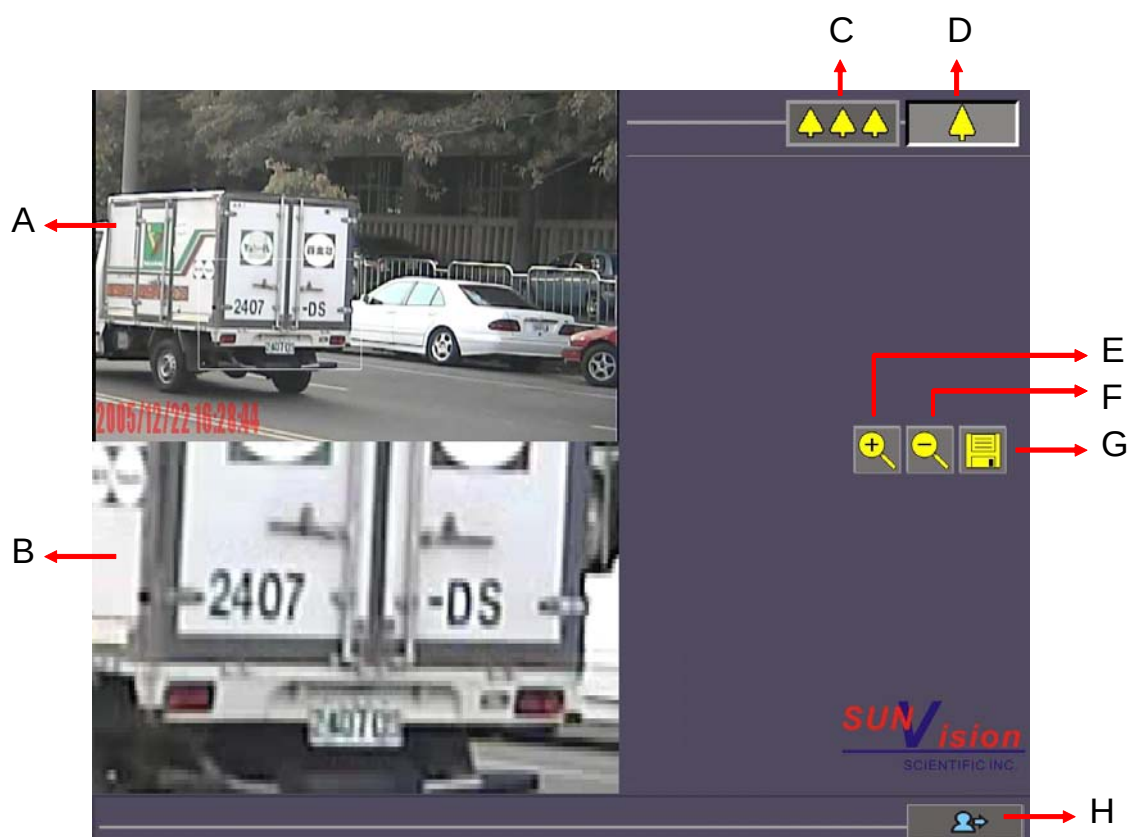


FIG. 3.2.2.1

A. The image

B. Zoom image



: Wide Angle Image



: Telescopic Image



: Zoom In

- F.  : Zoom Out
- G.  : Save
- H.  : Exit

Note: You can select an area to zoom in to by using the mouse to select the area of interest



FIG. 3.2.2.2

3.2.3



: Smart Search (V2.0)

After you selected the Smart Search's icon, then you will be switched to the Smart Search screen.

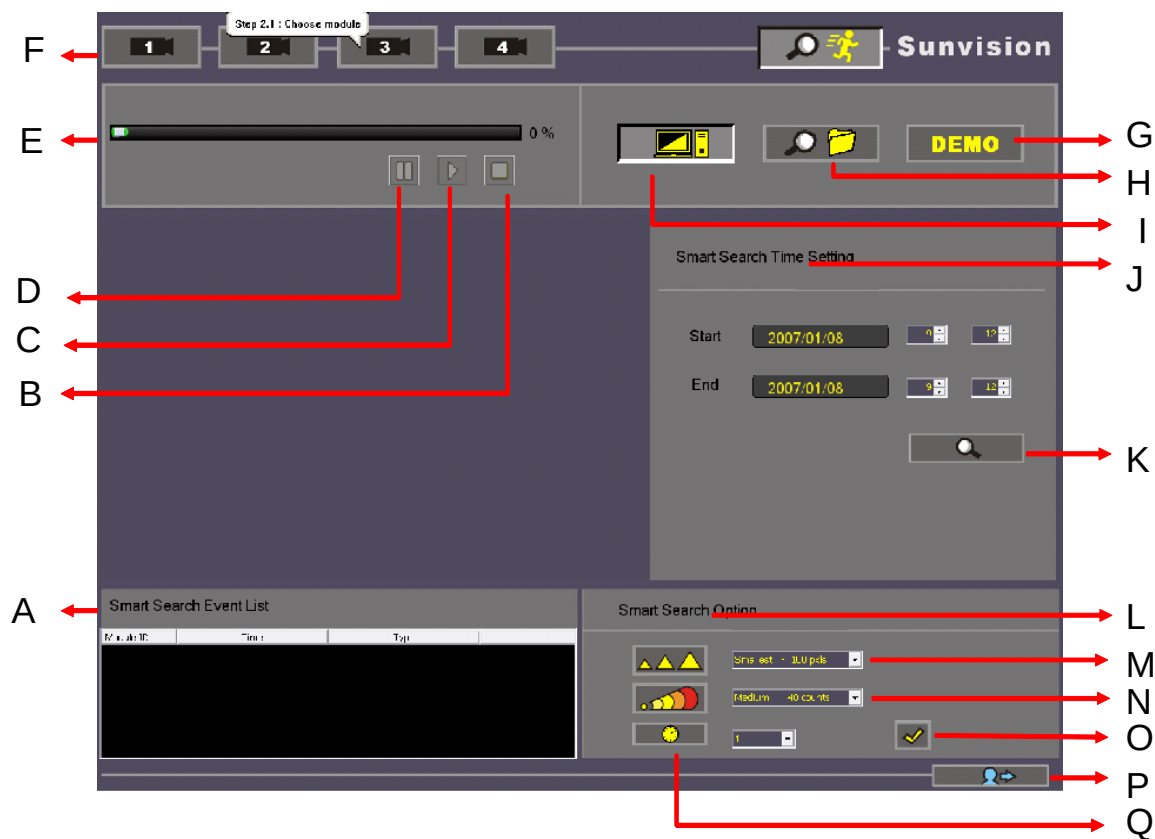


Figure 3.2.3.1

A. Smart Search event list

When the system finds an event on the wide angle video, information such as Module number, event time, and status will be shown on the Smart Search Event List.

B. Stop Smart SearchC. Start Smart Search

Start searching at 5 times speed.

D. PauseE. 11 % The percentage of searching progressF. Camera selection

- G.  Demo Mode

In Demo mode, you can run smart search on a demo video.

- H.  Manual Select Mode

In Manual Select mode, please designate the directory and file that you want to run smart search on.

- I.  Local Mode

In Local mode, please designate the file with date and time in your local PC.

- J. Smart Search Time Setting
Please select date and time to be searched

- K.  Start Search Video

- L. Smart Search Option
Please set parameters for targets

- M.  Target Size

Please set how many pixels in an area. If you choose large, large targets will be found and smaller ones are neglected.

- N.  Sensitivity

Please set the sensitivity to trigger an event. Poor video quality (with low light or long distance conditions) requires higher value of sensitivity to reduce mis-detection.

- O.  Save

Save this setting for the search

- P.  Exit Smart Search

- Q.  Event Trigger Time(second)

Setting the time for the targets to keep moving to trigger an event.

3.2.3.1 Local Mode (V2.0)

When to use: Please use this mode when the video files are in the local PC (the PC which is connected to the IGUANA camera module.)

Step 1: Select Camera Module

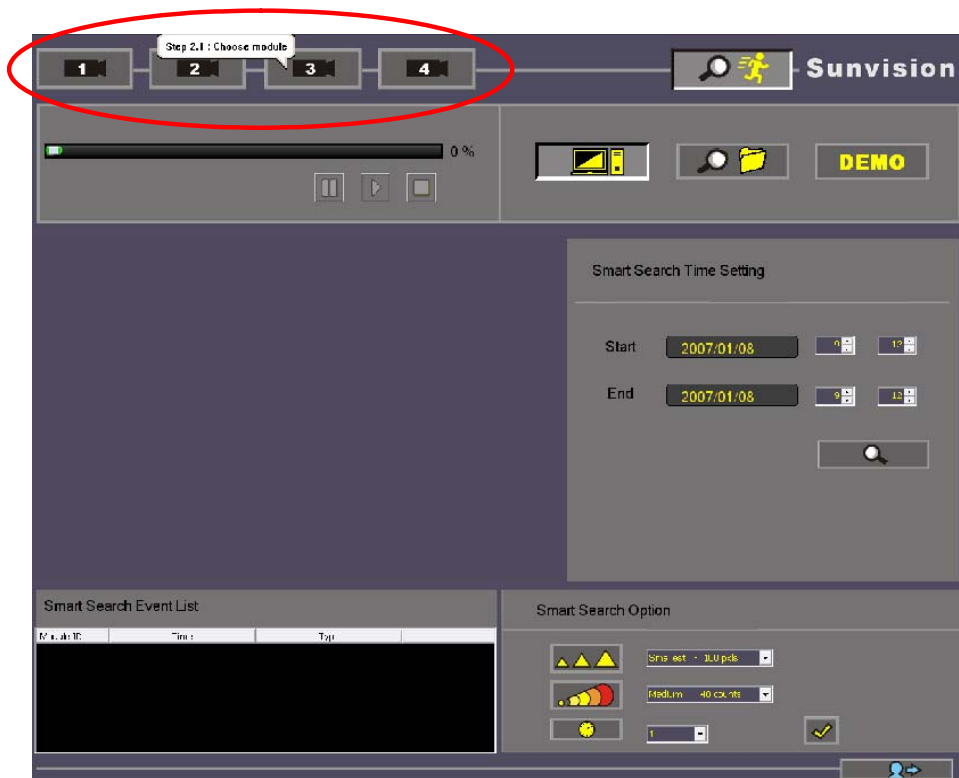


Figure 3.2.3.1.1

Step 2: Please set date and time then push search button.

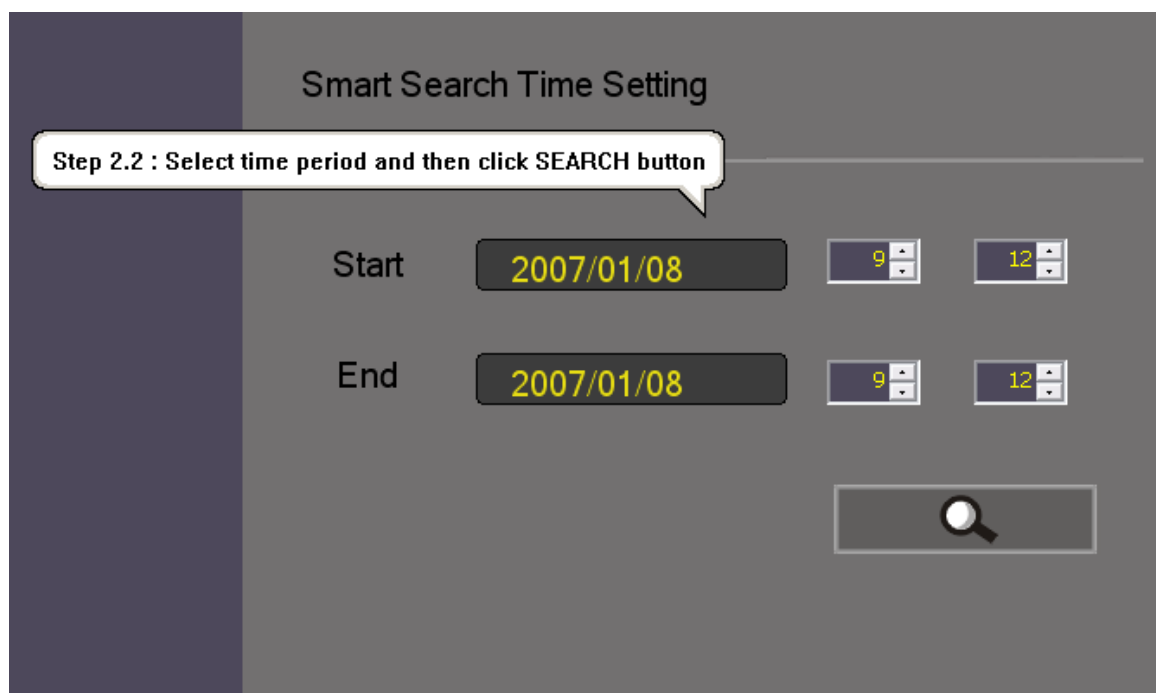


Figure 3.2.3.1.2

Step 3: Please draw a rectangle searching area on the wide angle image with the mouse.

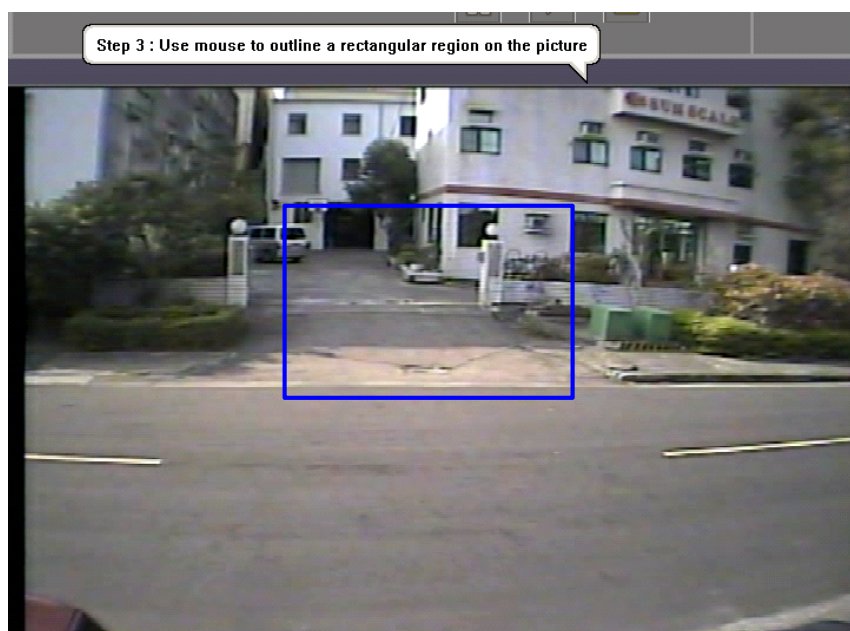


Figure 3.2.3.1.3

Step 4: Please set parameters and press OK

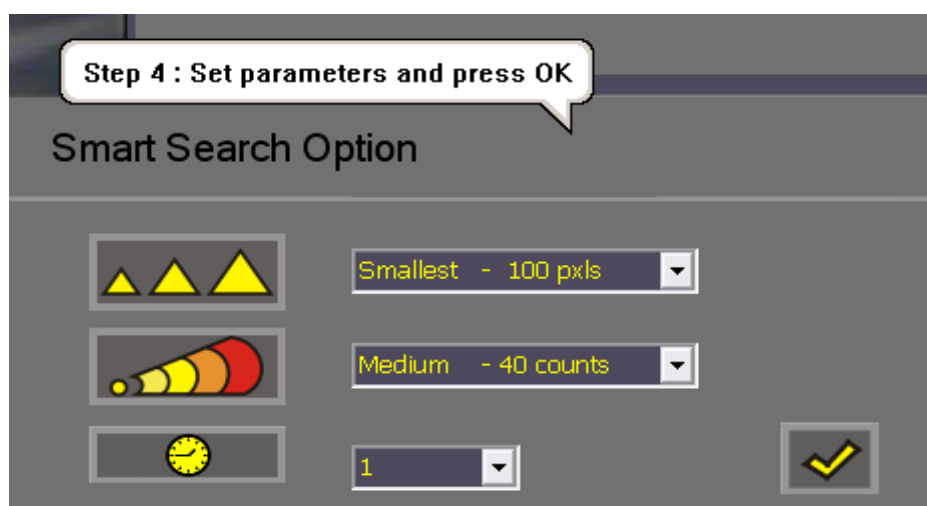


Figure 3.2.3.1.4

Note: There are 3 parameters to set for smart search

A.  Setting target size

Smart Search analyze and find targets only within the rectangle searching area. When you use this function, approximate size of target will appear on the bottom left for user to easily determine the

target size.

Example: Smallest-100pxls is roughly equals to the size of the left most square. If the size of the moving target is smaller than 100 pixels, the system will ignore it. When the size of moving target exceeds 100 pixels, the system recognize it as an effective target and record an event.

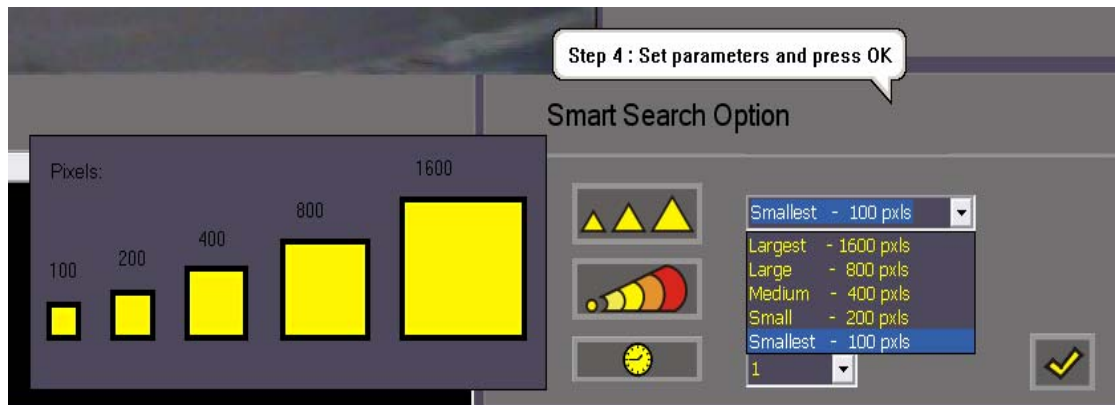


Figure 3.2.3.1.5

B. Setting sensitivity

The method of motion detection sensitivity uses the gray level of 0--255 on every pixel. "Medium-40 counts" means that it will be regarded as an effective moving pixel when the variation of gray level exceeds 40. Poor video quality (with low light or long distance conditions) requires higher value of sensitivity to reduce mis-detection.

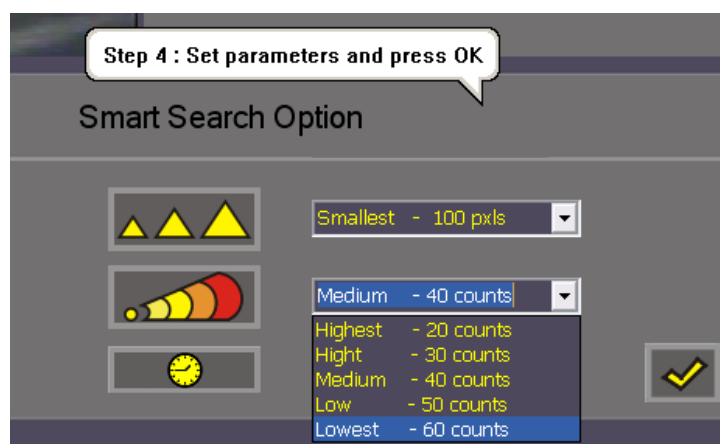


Figure 3.2.3.1.6

- C.  Event trigger time (second)

This sets the length of time that the target has to be moving to trigger an event.

If set “1”, system will search for targets that has been moving for more than 1 second and list it as an event.

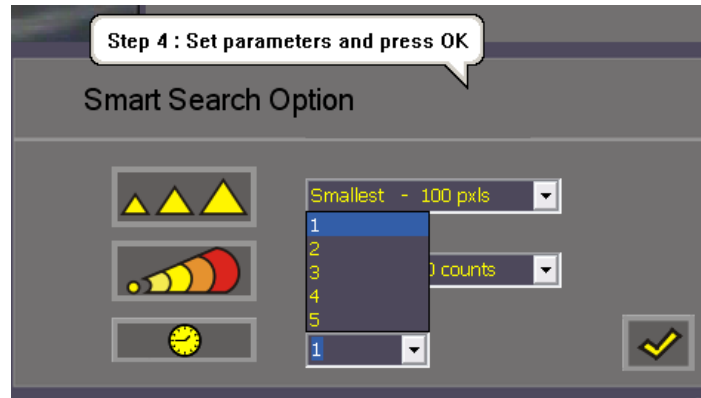


Figure 3.2.3.1.7

Step 5: Please push start button to start Smart Search

Step 6: Please select an event from event list

Smart Search Event List		
Module ID	Time	Type
1	2007/01/05 15:13:07	Smart Search
1	2007/01/05 15:15:57	Smart Search

Figure3.2.3.1.8

If there is an event that falls within the setting you specified, it will be shown as an event. You can check the video by double clicking the event listed in the Smart Search Event List.



Figure 3.2.3.1.9

3.2.3.2



Manual Select Mode

When to use: Please use this mode when the recorded video files are copied to other PCs. Directories or folders must be manually selected.

Step 1: Select file

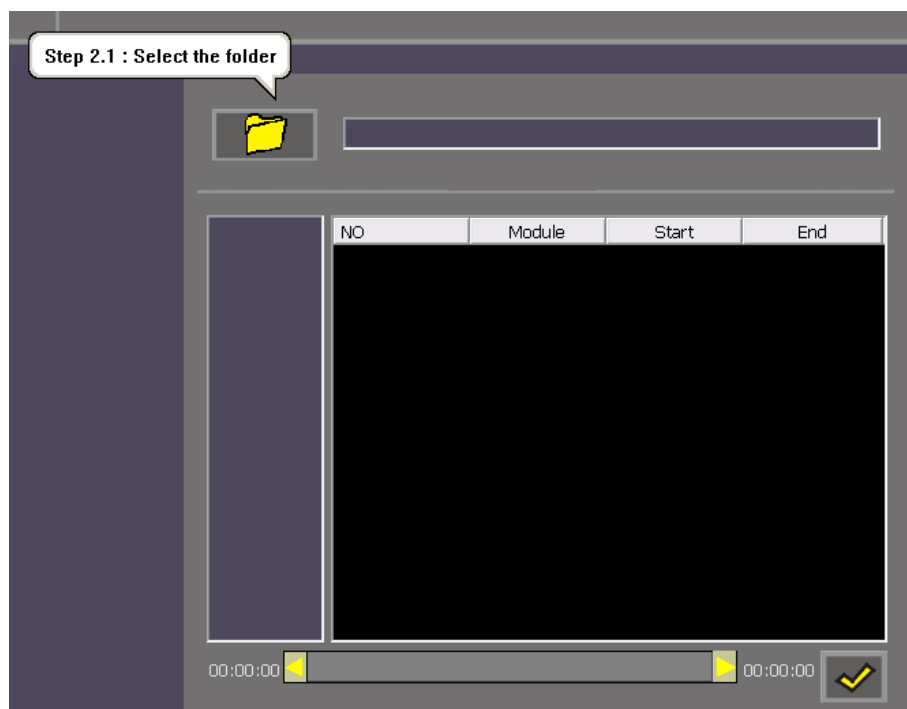


Figure 3.2.3.2.1

Step2.2: Select Date

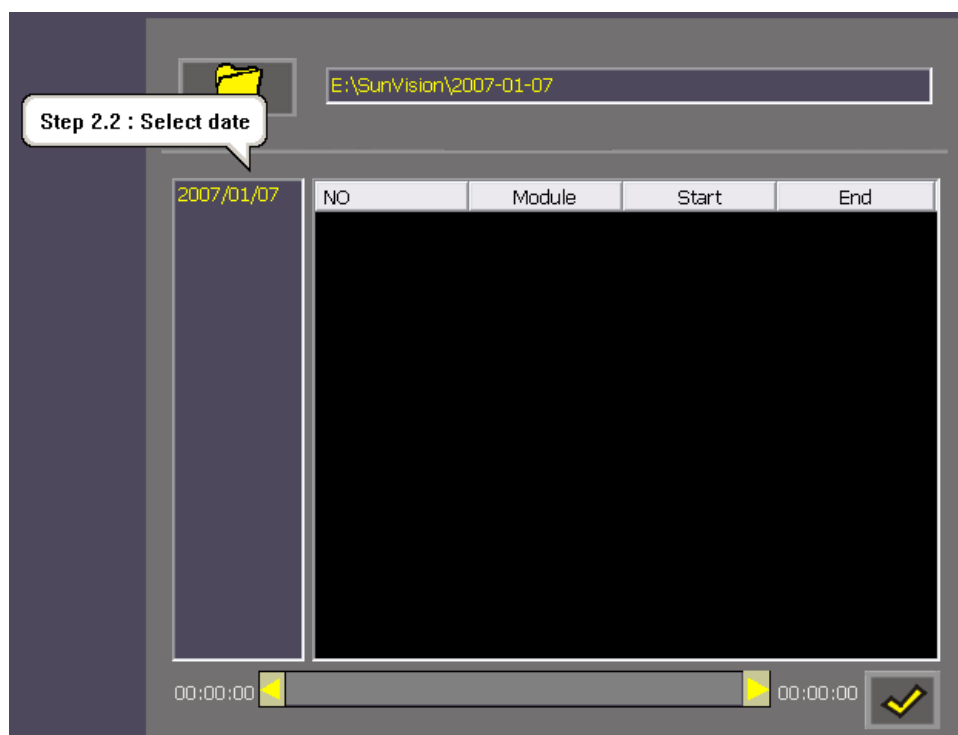


Figure 3.2.3.2.2

Step3: Select the file

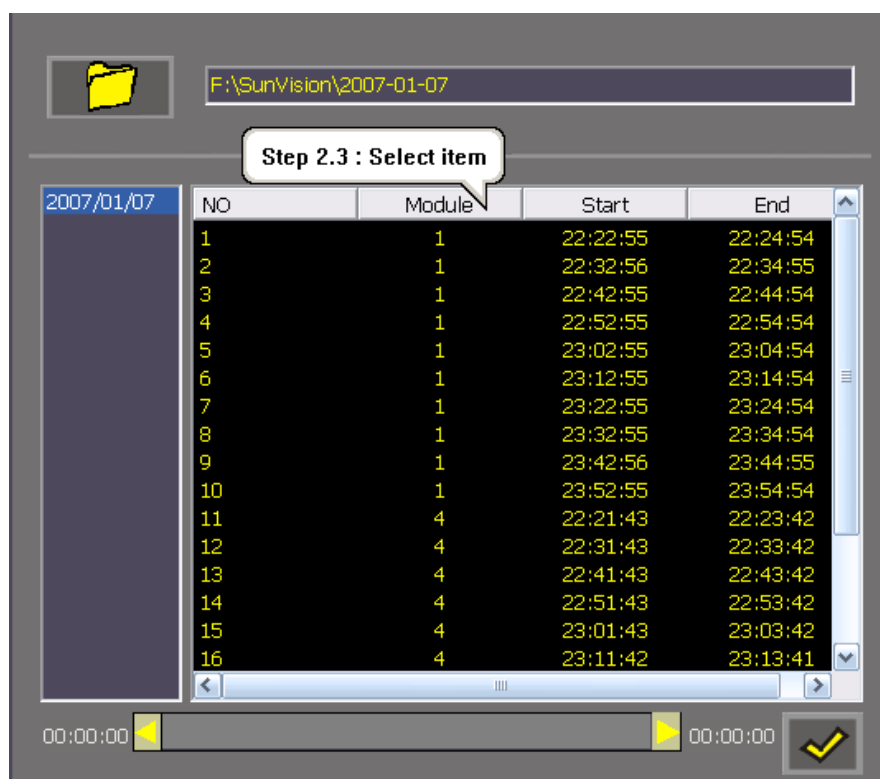


Figure 3.2.3.2.3

Step4: Select time from start to end

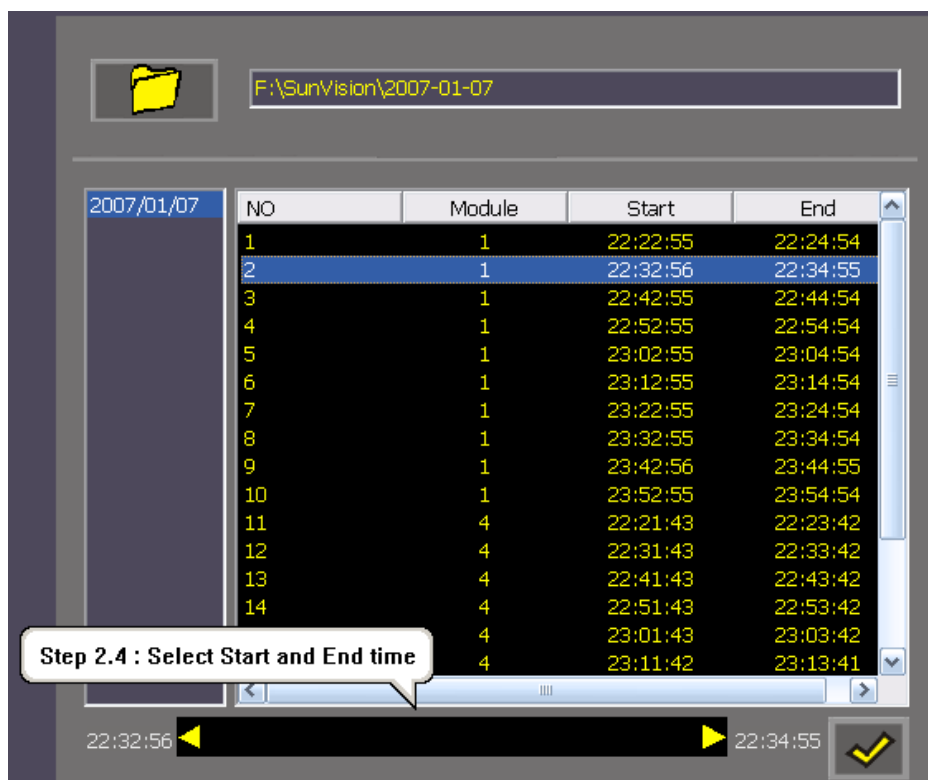


Figure 3.2.3.2.4

Step 5: Please push OK

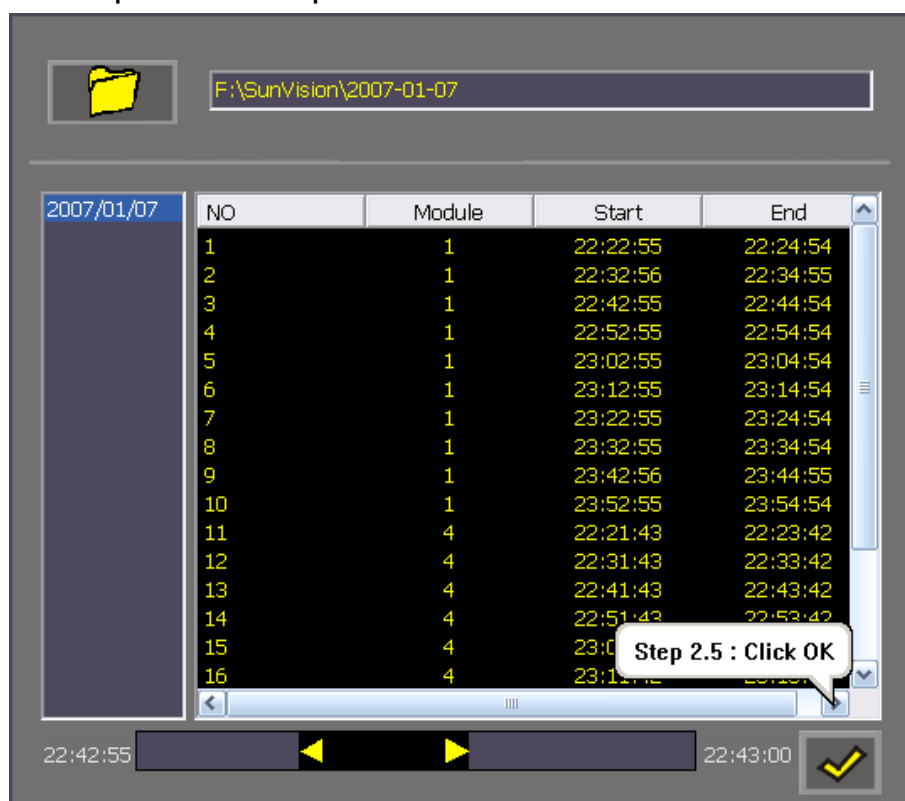


Figure3.2.3.2.5

Step 6: Please draw a rectangle with mouse where you want to search

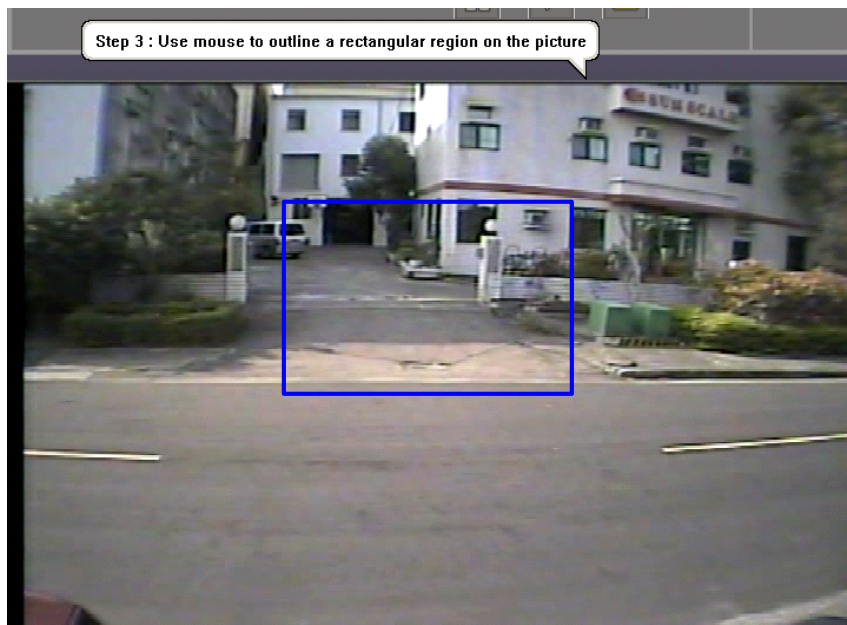


Figure3.2.3.2.6

Step 7: Please set the parameter and press OK

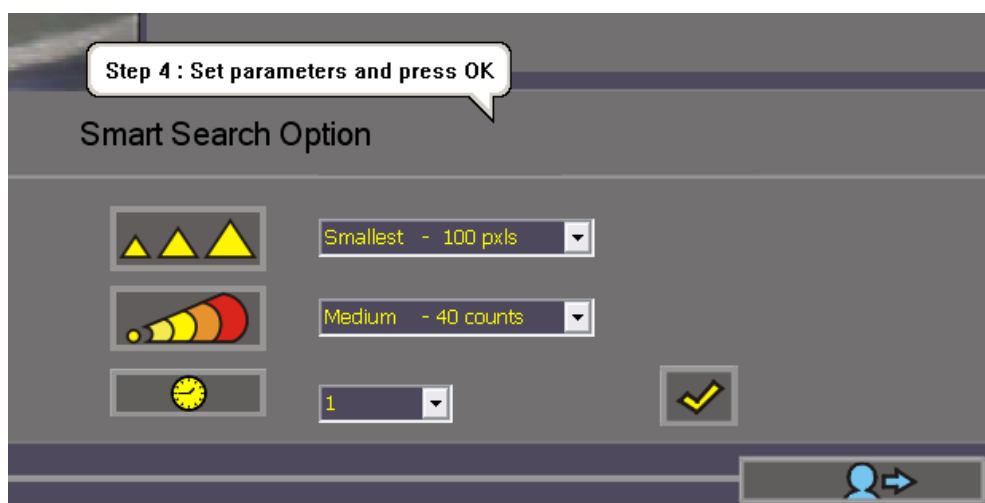


Figure 3.2.3.2.7

Step 8: Please press start button to start Smart Search

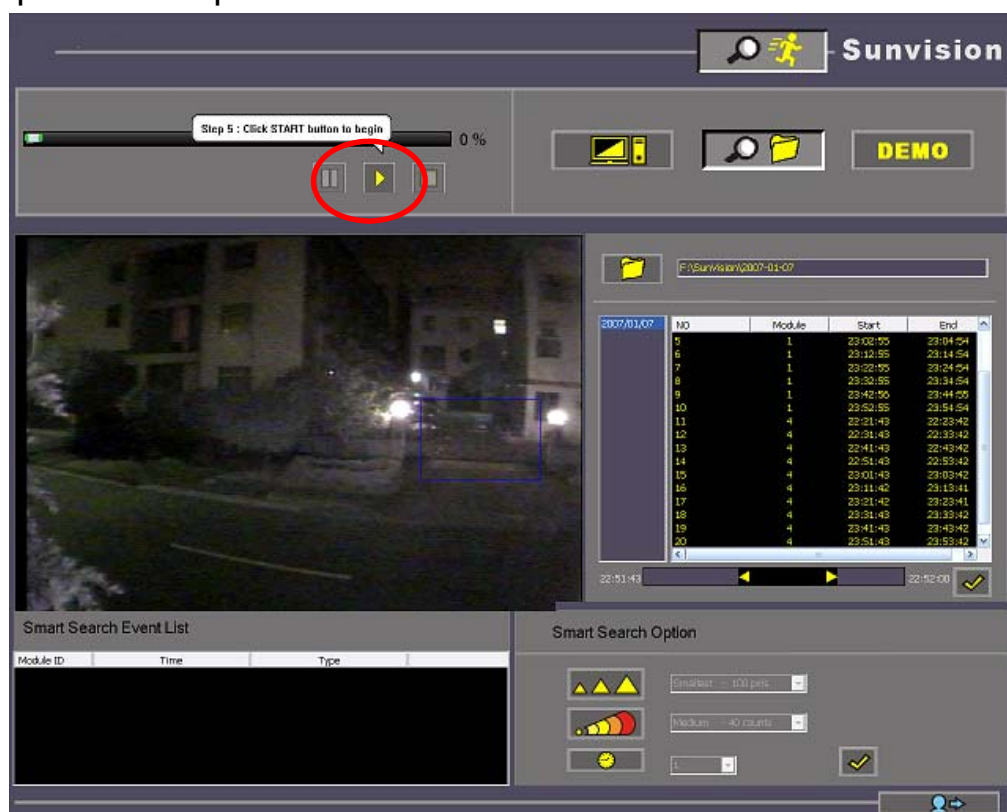


Figure 3.2.3.2.8

3.2.3.3 **DEMO** Demo Mode

When to use: Please use this mode when the file you want to search is in C:\SunVision\Demo

Step 2: Please select a file

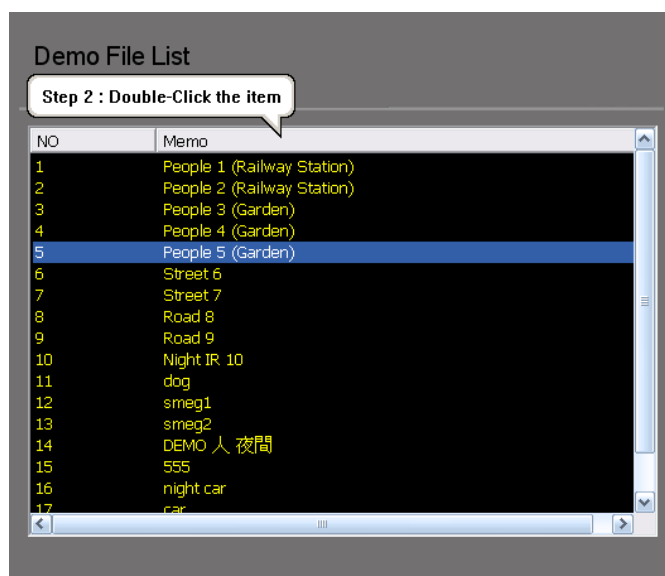


Figure 3.2.3.3.1

Step 3: Please draw a rectangle using the mouse on the wide angle image where you would like to search for moving targets.

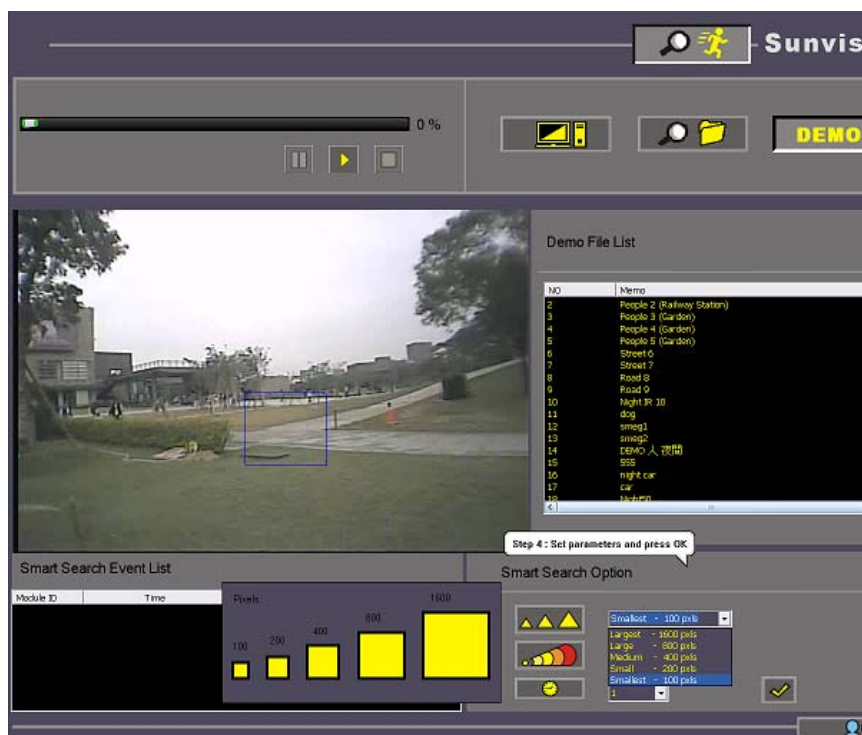


Figure 3.2.3.3.2

Step 4: Please set parameter and pres OK

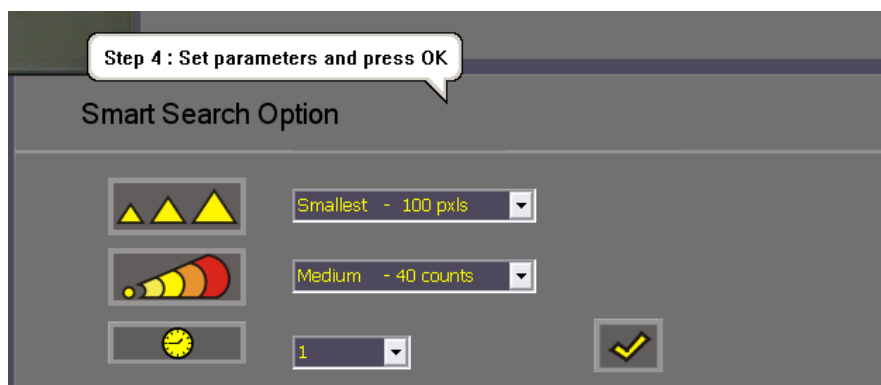


Figure 3.2.3.3.3

Step 5: Please press start button to start Smart Search

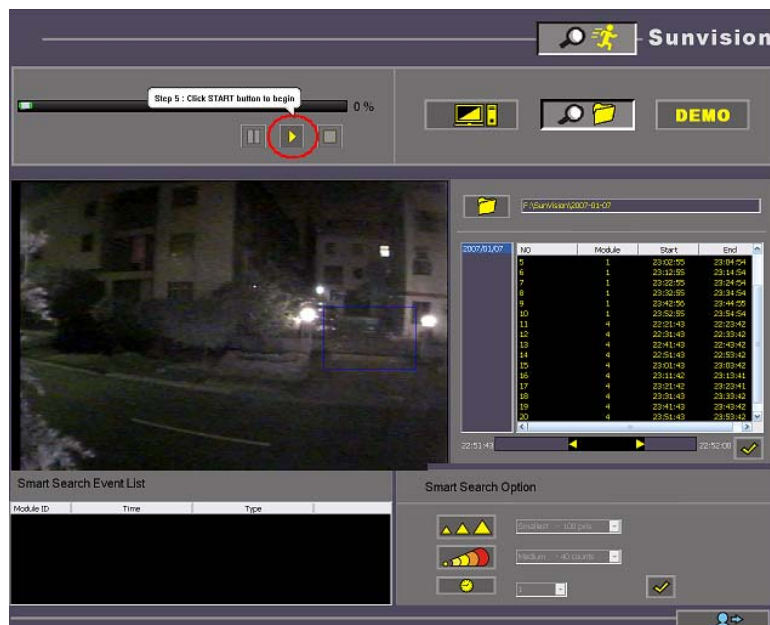


Figure 3.2.3.3.4

3.3 TOOL

3.3.1 : Preview Setup

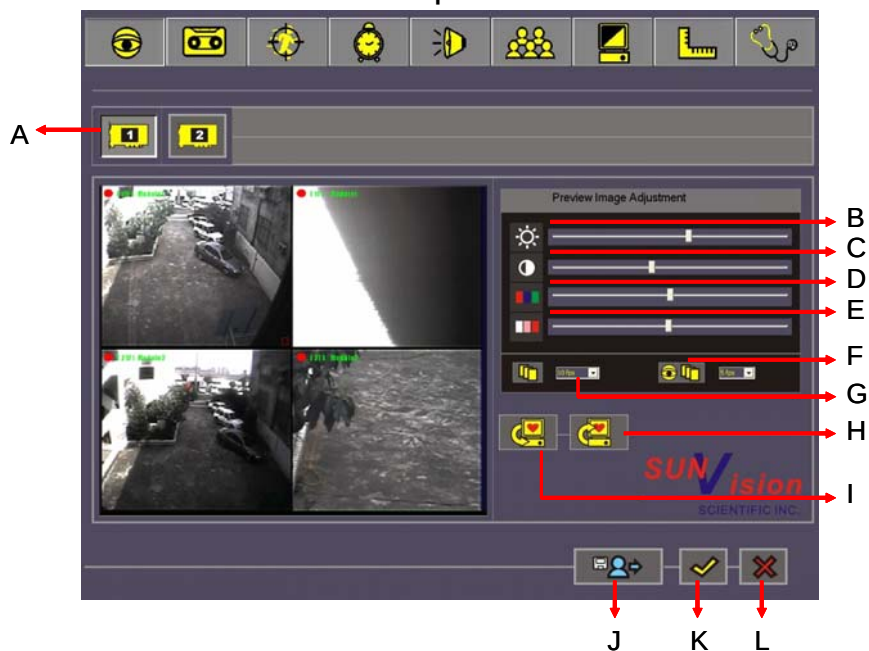
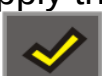


FIG. 3.3.1.1

- A.  : Card Selection
Select the video card that you want to adjust
- B.  : Brightness
Setting brightness
- C.  : Contrast
Setting Contrast
- D.  : Hue
Setting Hue
- E.  : Saturation
Setting Saturation
- F.  : Display frame rate
Preview display frame rate setting 1 fps ~ 5fps

- G.  : Capture frame rate
Motion Detection frame rate setting 5 fps or 10 fps
- H.  : Recall Previous Setting
Recall parameter setting saved before
- I.  : Save Setup
Save current parameter setting to file
- J.  : Save & Exit
Apply the new parameters and exit
- K.  : Accept
Apply the new parameters
- L.  : Cancel

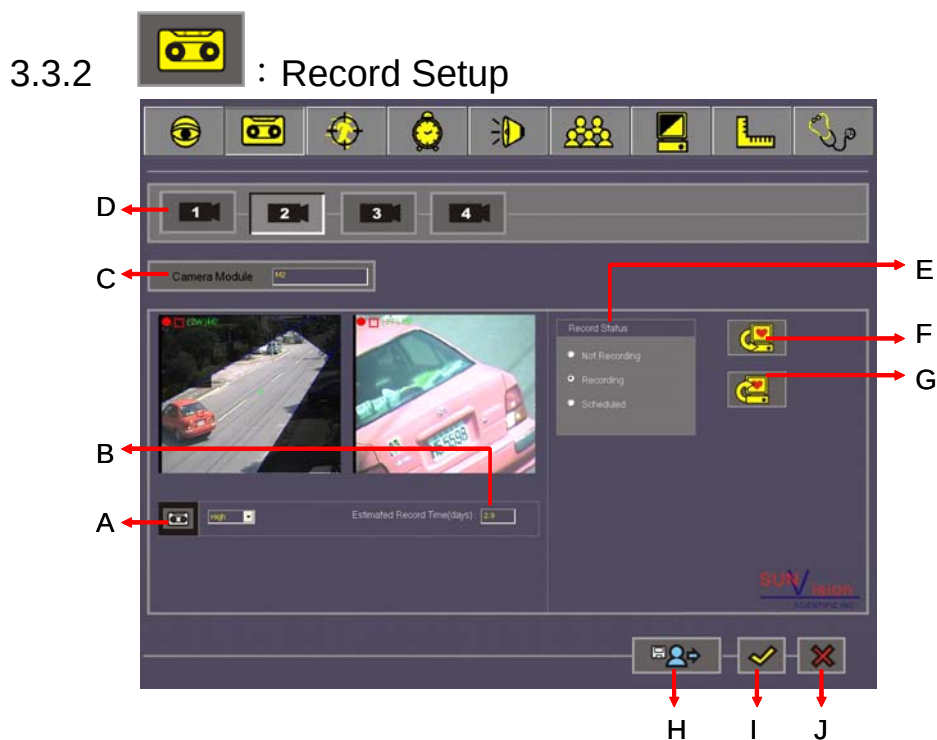


FIG 3.3.2.1

- A.  : Record Quality Selection
Select recording image quality, including the frame rate and resolution.
- B. Estimated Record Time
Estimated available recording time with respect to the recording quality
- C. Camera Module Name
Enter the name of the camera module here
- D. Camera Selection
Select the camera module to be adjusted
- E. Record status :
Not recording : Not recording
Recording : Start recording
Scheduled : Scheduled Recording
- F.  : Save Setup
Save current parameter setting to file
- G.  : Recall Previous Setting
Recall parameter setting saved before
- H.  : Save & Exit
Apply the new parameters and exit

- I.  : Accept
Apply the new parameters

- J.  : Cancel

3.3.3 : Motion Detection

To improve tracking targets, the following parameters including masking and others, can be adjusted. Better adjustments will reduce mis-firing and offer improved image quality and tracking efficiency.

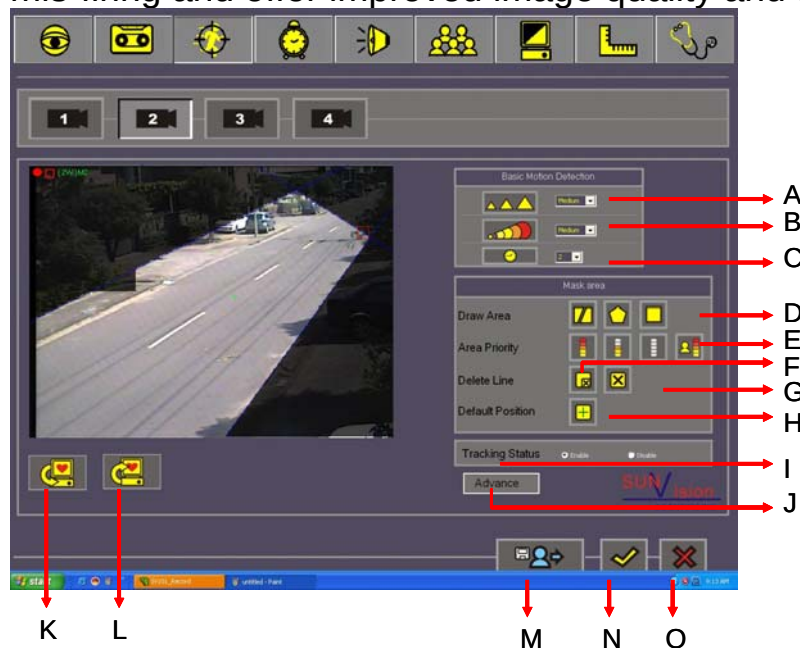


FIG. 3.3.3.1

- A.  : Target Size

Setting the minimum target size for motion detection. Selecting small target size will detect more keenly, but the mis-firing rate would also be higher.

- B.  : Sensitivity

Setting the trigger sensitivity. The sensitivity must be reduced when the mis-firing rate is high, or the distance between PC and the camera module is far.

- C.  : Event Trigger Time

Setting the time to trigger an event. A shorter time will be more sensitive, but the mis-firing rate would also be higher.

D. Mask :



: Section

Cut the screen into two sections



: Polygon

Draw a polygon on the screen



: Rectangle

Draw a Rectangle on the screen

E. Masked Area level Setup



: Normal Detection

Normal detection area. A masked area can be removed by assigning a back to normal detection area.



: Low Detection

Low priority detection area



: No Detection

Targets within this area will not be detected



F. : Delete Line

Delete one line group



G. : Delete All Lines

Delete all lines on this screen



H. : Default Position

The telescopic camera will return to the default position after 15 seconds of no motion detected.

I. Motion detection status

Start : Start the motion detection

Stop : Stop the motion detection

J. Advance

Go to advance setting

K.  : Save Setup
Save current parameter setting to file

L.  : Recall Previous Setting
Recall parameter setting saved before

M.  : Save & Exit
Apply the new parameters and exit

N.  : Accept
Apply the new parameters

O.  : Cancel

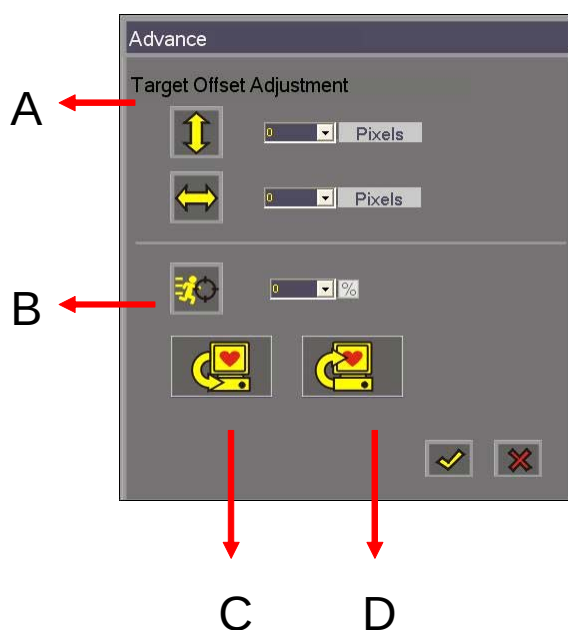


FIG. 3.3.3.2

A. Fine adjustments of targets



: Vertical

Vertical fine adjustment of targets. Upward is positive.



: Horizontal

Horizontal fine adjustment of targets. Rightward is positive.



B. : Target location prediction

Predicts the location of targets by assigning an advance increment.



C. : Save Setup

Save current parameter setting to file



D. : Recall Previous Setting

Recall parameter setting saved before

Notes for motion detection :

A. Target detection and event trigger setting

1. Detection setting

First, set the size of the targets that will trigger detection. The resolution for the whole screen is 320 X 240. If the targets at a distance need to be tracked, smaller sizes should be selected. Or, if the target needs to be tracked only when it is near the camera, large target sizes should be selected to reduce the mis-firing rate.

2. Setting sensitivity

Variable environments of camera modules can be installed, different sensitivity settings are required for best results. If the distance from the camera module to PC is far, or the noise level of the video signal is high, low sensitivity should be selected to reduce the rate of mis-firing.

3. Event trigger time setting

Event trigger time is the time it takes from the first motion detected, with continuous activities detected, to the time to trigger an event. Longer event trigger time will reduce the misfire rate, but it will also reduce the sensitivity.

4. Masking

Within the wide angle image, you may have areas of different

levels of importance, such as the main gate and the reception desk, which you want to emphasize, or swaying trees and flags, which you want to neglect. Masking can be used to assign different priorities to areas within the wide angle view in order to improve the tracking efficiency or reduce the rate of mis-firing. Half transparent yellow areas indicate "Low priority area". Targets within this area have less chance to be detected. Half transparent black areas indicate "No detection area". Targets within this area will not be detected at all.

How to use :

A. Section

1. Move the cursor near one edge of the screen, then the cursor will change to , click the left mouse button to select the first end of the line.

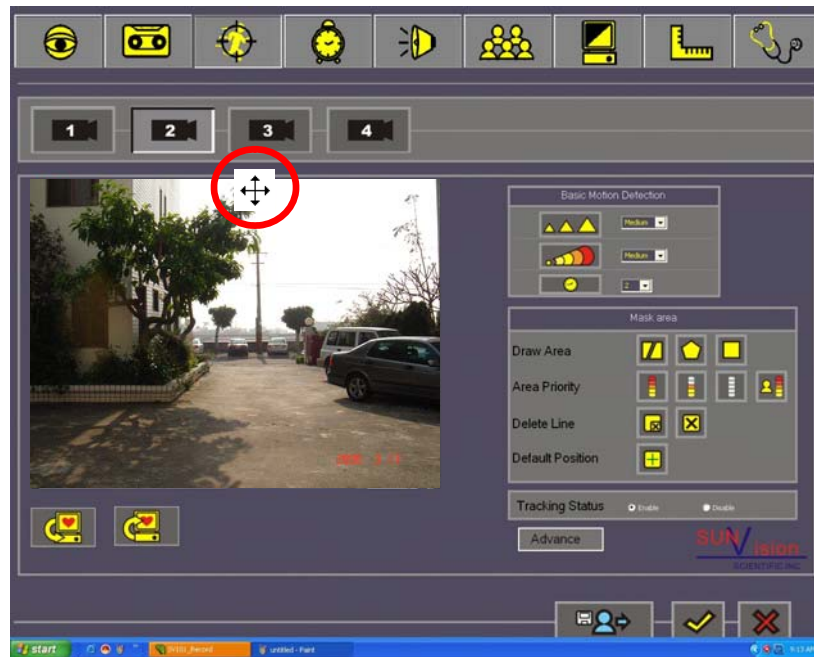


FIG. 3.3.3.3

2. Select the other end of the line by moving the cursor near one other edge of the screen, and the cursor will change to , click the left mouse button to complete the selection.

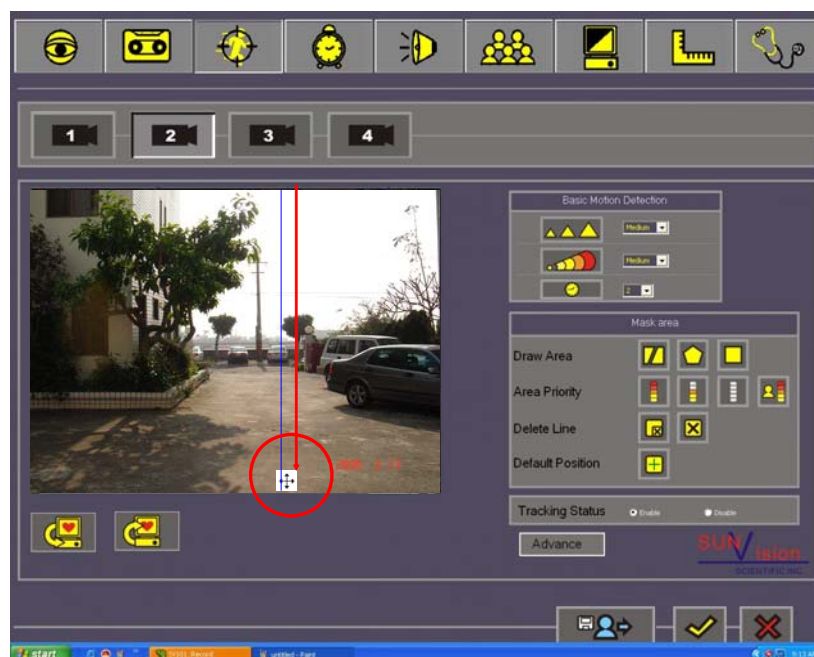


FIG. 3.3.3.4

Select the priority of the area



FIG 3.3.3.5

3. Select the area and click left mouse button to assign the priority

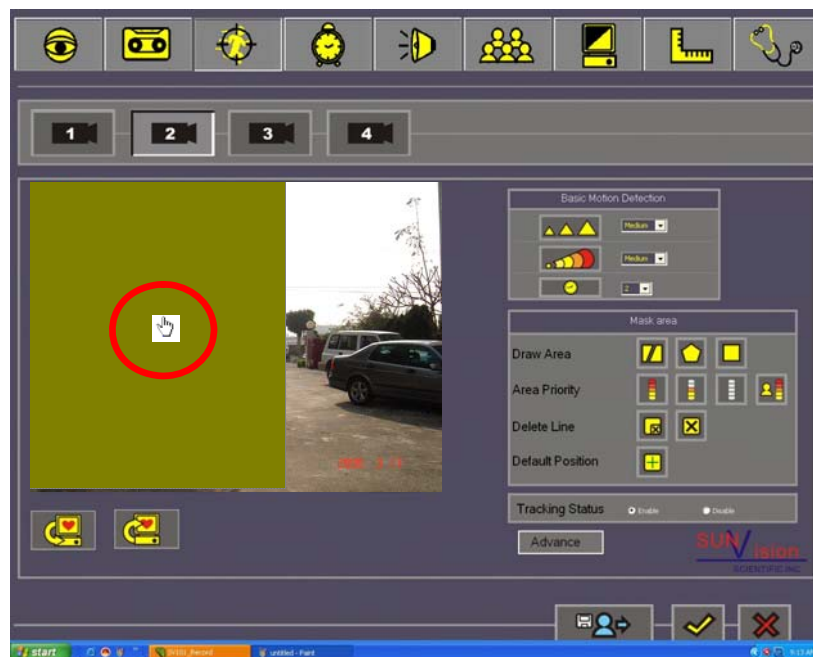


FIG. 3.3.3.6

B. Polygon area

1. Draw a polygon by selecting each corner of the polygon.



FIG. 3.3.3.7

2. Select the priority of the area.
3. **Select the area and click left mouse button to assign the priority**

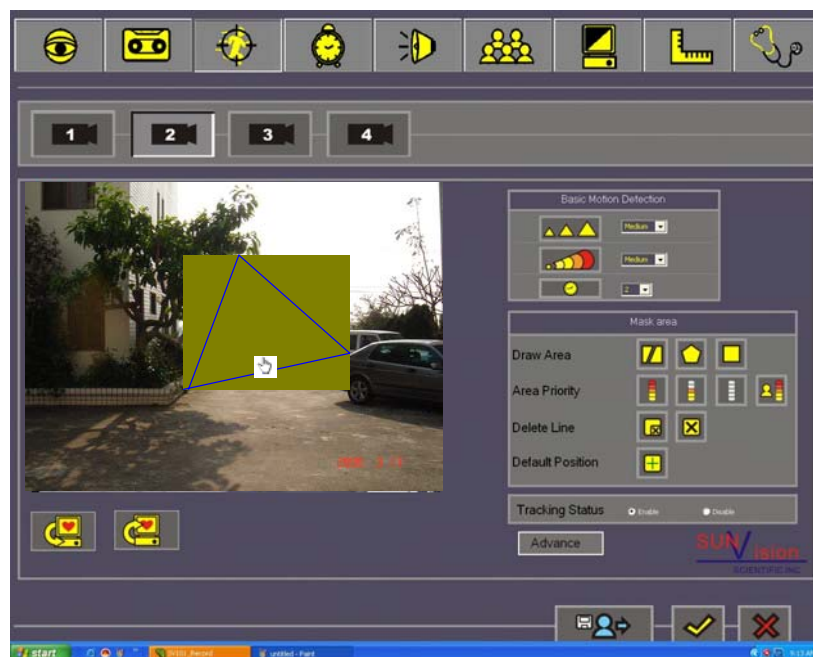


FIG. 3.3.3.8

C. Rectangle

1. Draw the rectangle by selecting the opposite corners of the rectangle.



FIG. 3.3.3.9

2. Select the priority of the area.
3. **Select the area and click the left mouse button to assign the priority**

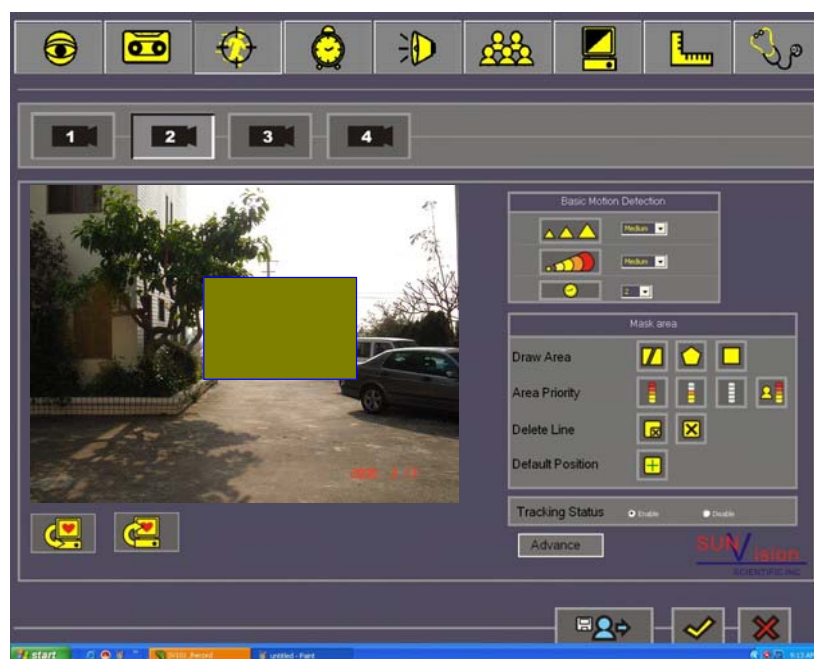


FIG. 3.3.10

Application Examples :

A. Masking interferences

1. Marking the interferences, such as swaying trees or flags, by drawing a polygon around it.

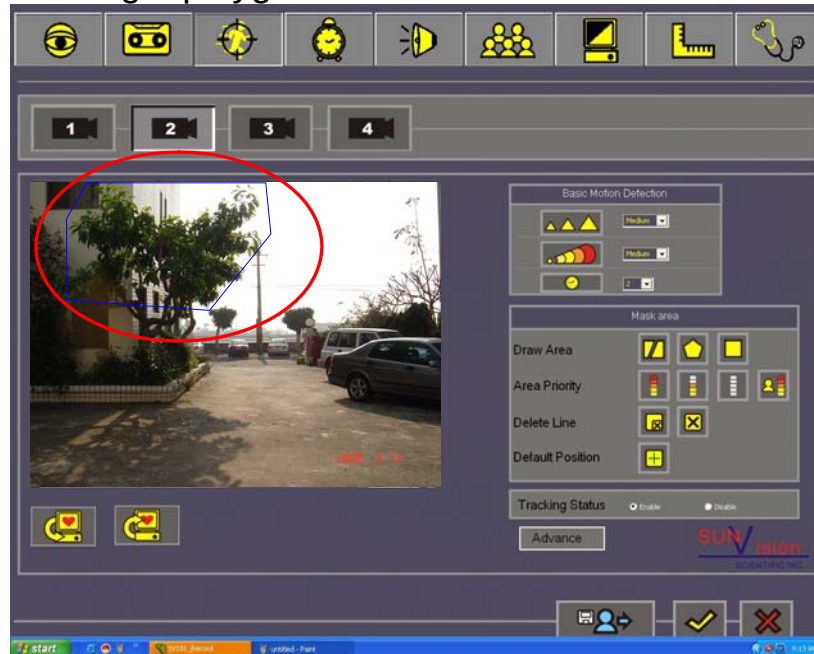


FIG. 3.3.3.11

2. Select No detection  and press within the polygon area, the area will change to black indicating a no detection area.



FIG. 3.3.3.12

B. Setting important areas, it could be a counter area, or an entrance area.

1. Select the area of importance by outlining it with a rectangle



FIG. 3.3.3.13

2. Select low priority



FIG. 3.3.3.14

3. Click outside the rectangle area, the area will change to yellow indicating a low priority area.

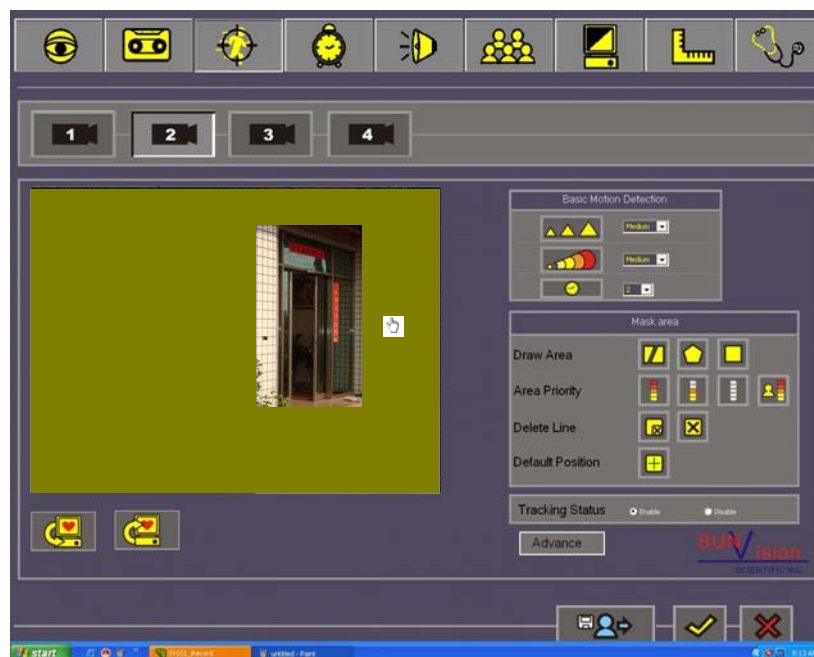


FIG. 3.3.3.15

C. Change the priority of an area

1. Select priority : normal  , low priority  , no detect  ,or

User X2 

2. Select the area to have a changed priority



FIG. 3.3.3.17

D. Delete one line group

1. Select delete one line group 



FIG.3.s3.3.18

2. Select the line group, a rectangle, a polygon, or a simple line, and click the left mouse button to delete the line group.

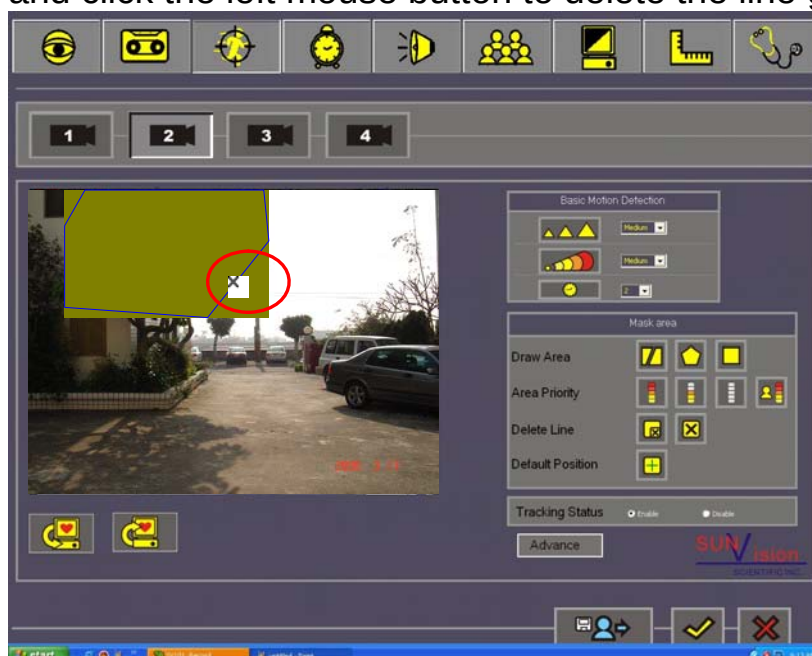


FIG. 3.3.3.19

3. Note: When deleting a line group, only the lines (blue frame) are deleted. The area that has been assigned priority will remain unchanged.



FIG. 3.3.3.20

4. In order to completely remove the priority setting, normal



priority needs to be re-assigned to the area, besides just deleting the lines

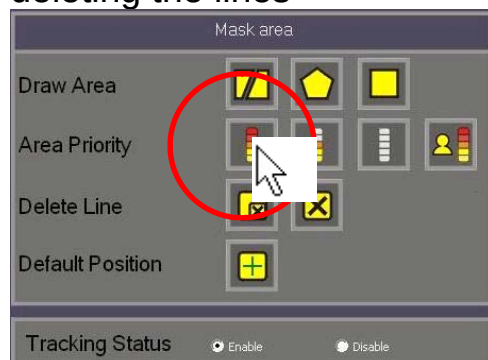


FIG. 3.3.3.21



FIG. 3.3.3.22



FIG. 3.3.3.23

E. Default telescopic camera position



The telescopic camera will return to the default position after 15 seconds of no motion detected.

1. Please click



Default Telescopic Camera Position



Fig.3.3.3.24

2. Please click on the left image (wide angle image) with green cross as the default telescopic camera position. If there is nothing moving for more than 15 second in the surveillance area, the telescopic camera will go back to the default position.



Fig. 3.3.3.25

F. Tracking Status :

Enable means to start active tracking. System starts automatic tracking

Disable means to stop active tracking. System will not track

anything
G. Advanced :

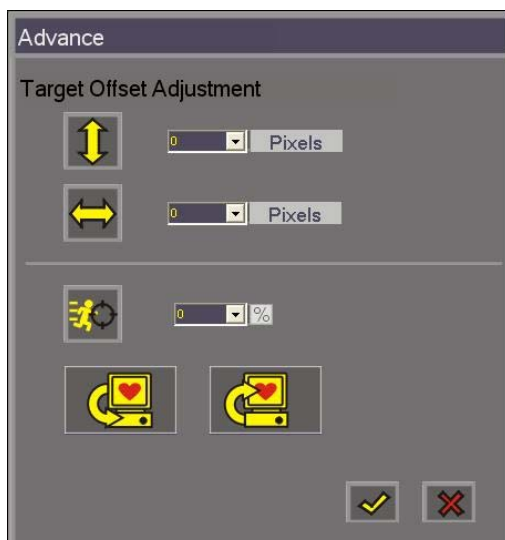


FIG. 3.3.3.26

Including adjustments of horizontal, vertical off-set, and motion prediction setting

1. Horizontal and Vertical off-set



If the tracking of targets is off-set by a constant amount, or if you want to emphasize some specific area of target such as the upper part of a person, off-set adjustment can be used. The resolution of the image is 320 X 240 pixels.

2. Position prediction



Tracking accuracy can be improved by using the position prediction to solve the time lag problem.

3.3.4 : Record Schedule

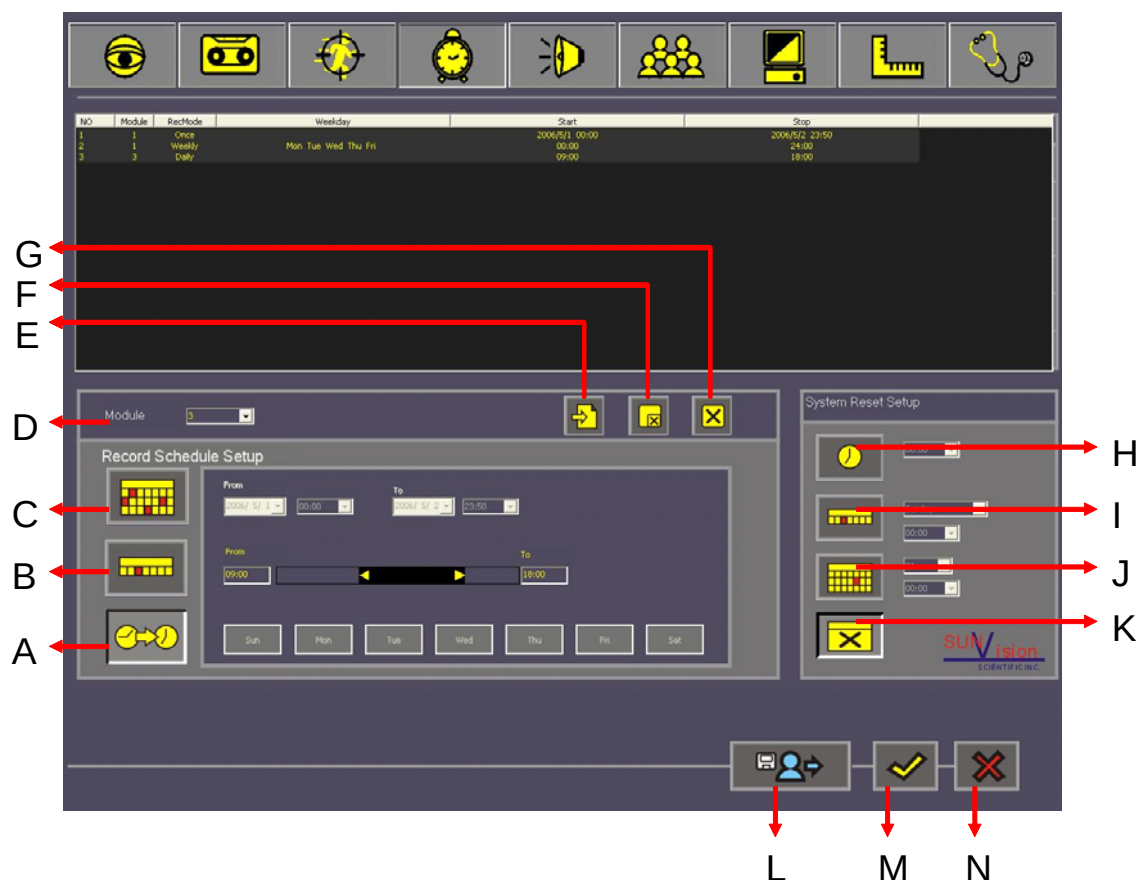


FIG. 3.3.4.1

- A.  : Everyday
To record at a fixed time everyday
- B.  : Weekly
To record each selected day of the week
- C.  : Once
To record each selected date once.
- D. Module schedule select :
Select the camera module to be programmed with a scheduled recording time
- E.  : Add scheduled recording time
Add a new scheduled recording time setting. This button must be pressed after each scheduled recording is completed to add it to the schedule list.
- F.  : Delete one scheduled recording time

Delete one scheduled recording time setting

- G.  : Delete all schedules

Delete all scheduled settings

- H.  : Setting daily system re-boot
Sets the time for daily system re-boot

- I.  : Weekly Setting daily system re-boot
Sets the time for weekly system re-boot °

- J.  : Monthly Setting daily system re-boot
Sets the time for monthly system re-boot

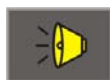
- K.  : No system re-boot setting
System will never re-boot

- L.  : Save & Exit
Apply the new parameters and exit

- M.  : Accept
Apply the new parameters

- N.  : Cancel

3.3.5



: I/O & Alarm

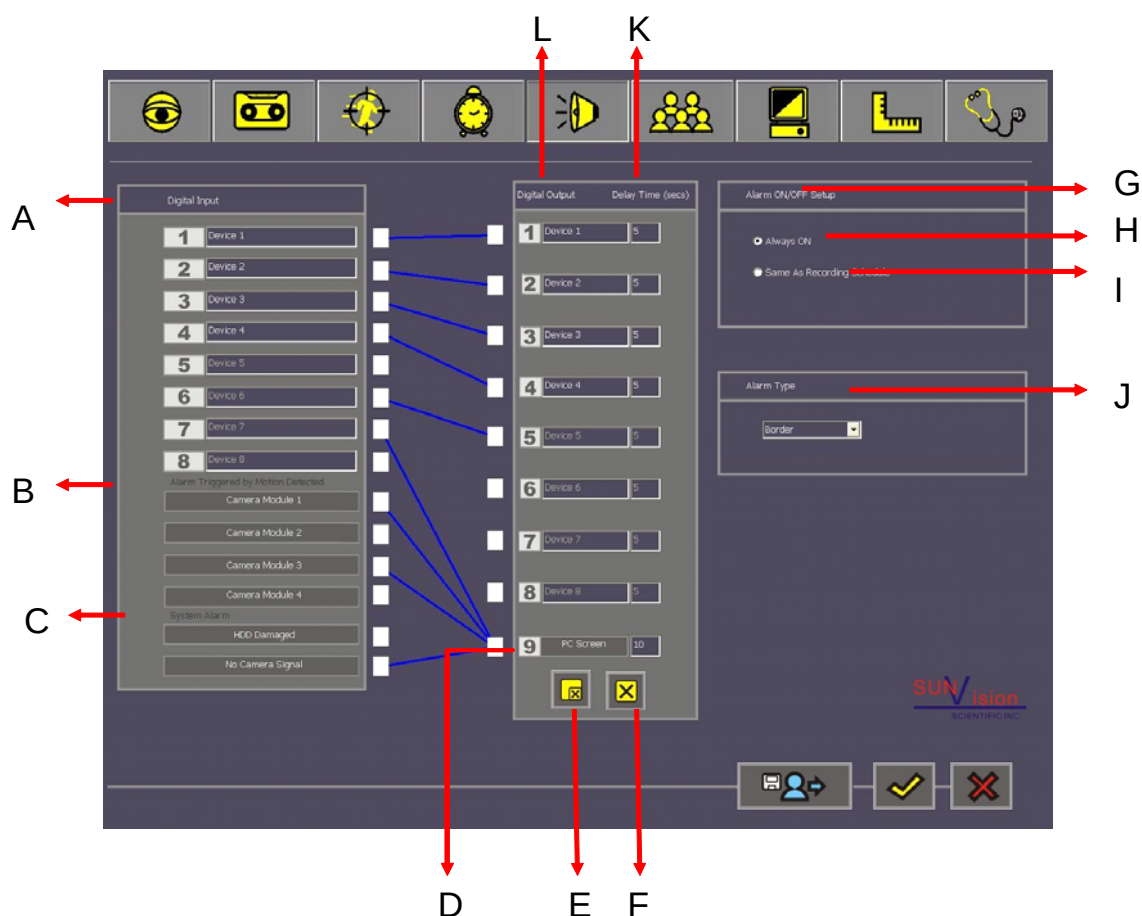


FIG. 3.3.5.1

- A. Digital Input
4/8 Digital Inputs, Enter the module or sensor name here.
- B. Alarm Triggered by Motion Detection
Output triggered by camera module motion detection. The system trigger outputs signals to control lights, alarms, or display on the PC screen when wide angle camera detects moving object reached event trigger time(Follow 3.3.3C)
- C. System Alarm
2 types of system alarms
 - 1. HDD damaged: Bad blocks might appear after hard disk has been running for a long period of time. When there's a lot of bad blocks or the hard disk can't read/write, the system will trigger this alarm.
 - 2. No Camera Signal: When the signal of one camera module has been lost, system will trigger this alarm.
- D. PC Screen

Display alarm on the pc screen as an output.

- E.  Delete One Item

Delete connection between one input and output

Step One: Select connection

Select the connection to delete. Click the mouse left button, the connection will turn to red from blue.

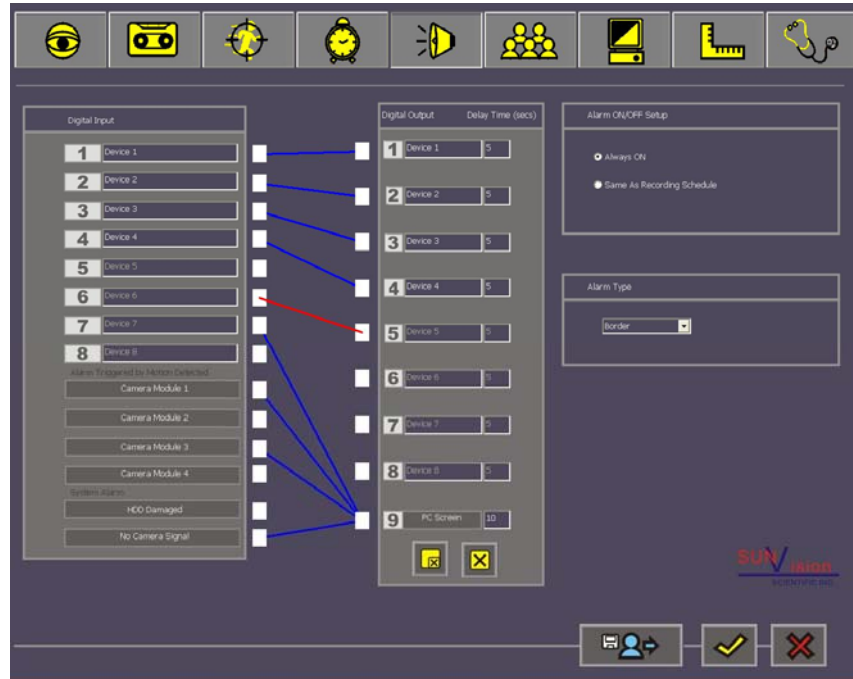


FIG. 3.3.5.2

Step Two: Delete connection

Press  to delete the selected connection.

- F. Delete All
Delete all connections between input and output
- G. Alarm on/off
Setup when to enable an alarm. Always ON or same as recording schedule.
- H. Always ON
Always enable alarm.
- I. Same as recording schedule
Alarm enabled when recording from the schedule.
- J. Alarm Type
There are 4 types of alarms, output on the PC screen
No: No Alarm on the PC screen
Border: Red flashing on the screens border will be shown on the PC screen when alarm triggered (Default)
Full Screen: Full screen red flashing will be shown on the PC screen when an alarm is triggered.

Text: Red text will be shown on the PC screen when an alarm is triggered.

K. Delay Time

The delay time of output after sensors have triggered an alarm. For example: If the delay time is set to 0, the output is closed immediately. If delay time is set to 1, the alarm's output will last for 1 second. If delay time is set to 23, the alarm's output will last for 23 second.

L. Digital Output

4/8 Digital Inputs, Enter the output device name here

Note:

When one video card has been installed in the system, 4 inputs and 4 outputs are available. You are also able to install SV1014 I/O board then you would have 4 pairs of I/O's available, and it's possible to control the signals from an outside source. When two video cards have been installed, 8 inputs and 8 outputs are available. Also your are able to install SV1014 I/O board then 8 pairs of I/O's are available and it's possible to control the signals from outside source.

How to use

To connect input No.8 to output No.5, please follow the steps bellow.

Step One: Drawing a connection

Point at the square on the right side of Input No.8, click the mouse button and drag the mouse to the square on the left side of output 5.

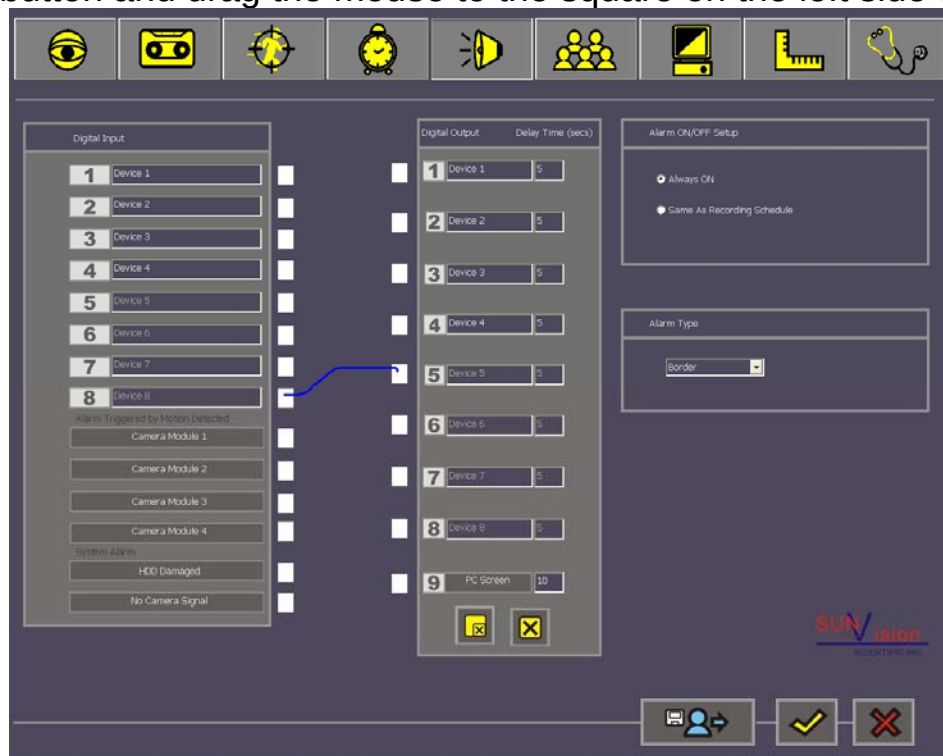


FIG. 3.3.5.3

Step two: Release the left mouse button to complete the connection.

3.3.6 : Account Management

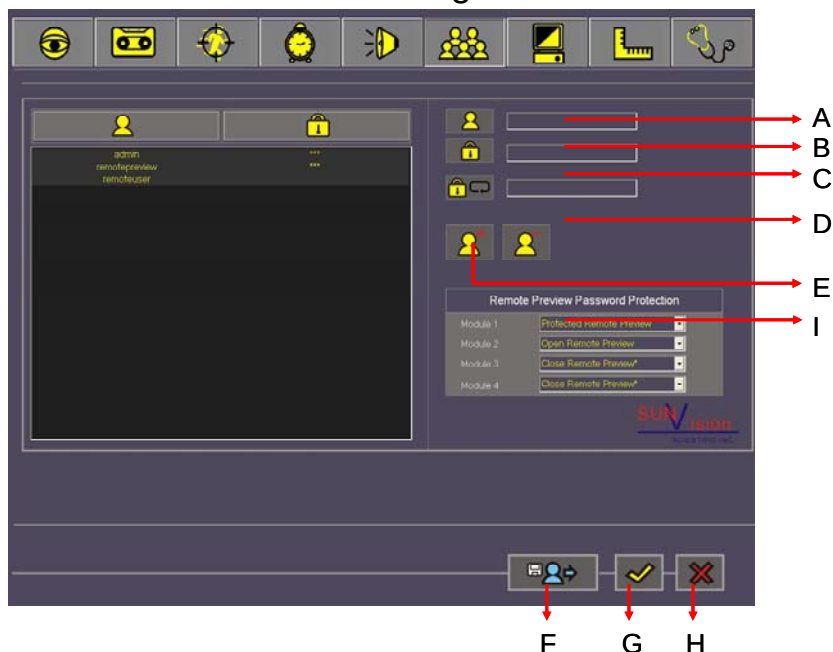


FIG. 3.3.6.1

- A.  : User name
Sets user account name
- B.  : Password
Sets user password
- C.  : Confirm password setting
Repeat the user password
- D.  : Delete user
Delete a user account
- E.  : Add user
Add a user account
- F.  : Save & Exit
Apply the new parameters and exit
- G.  : Accept
Apply the new parameters
- H.  : Cancel

I. Remote Preview Password Protection

Enable or disable the Remote Preview Password Protection by camera module setting.



Close Remote Preview*

Default setting: Disable remote preview to all users

Open Remote Preview

Enable the remote preview of this camera module to all users on IE browser.

Protected Remote Preview

Enable remote preview with password protection

Note: the user name must be "remotepreview"

How to use :

A. To add a new user account.

1. Please type in account name, password and then click add user 



FIG. 3.3.6.2

2. New account created

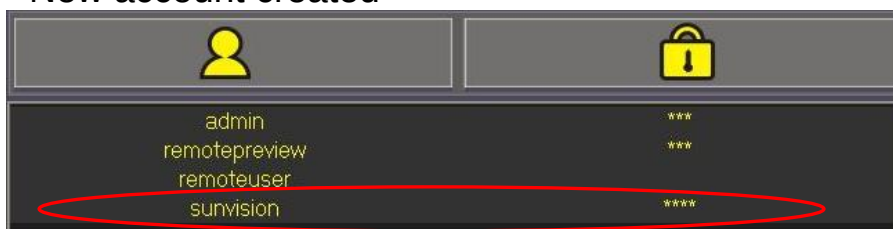


FIG. 3.3.6.3

B. To change a password.

1. Select the user
2. Key in the new password

3. Press 
4. User password change completed



FIG. 3.3.6.4

Notice!:

1. [**Admin**] is a default account, factory default password is [123].
2. [**tt**] is a default account, factory default password is [**tt**]
Default account can not be deleted.
3. [**remotepreview**] is a default account , factory default password is [123] .
4. [**remoteuser**] is also a default account, the password is not necessary.
5. [**remotepreview**] and [**remoteuser**] are for client IE browsing and can not be remove but the passwords can change by user.

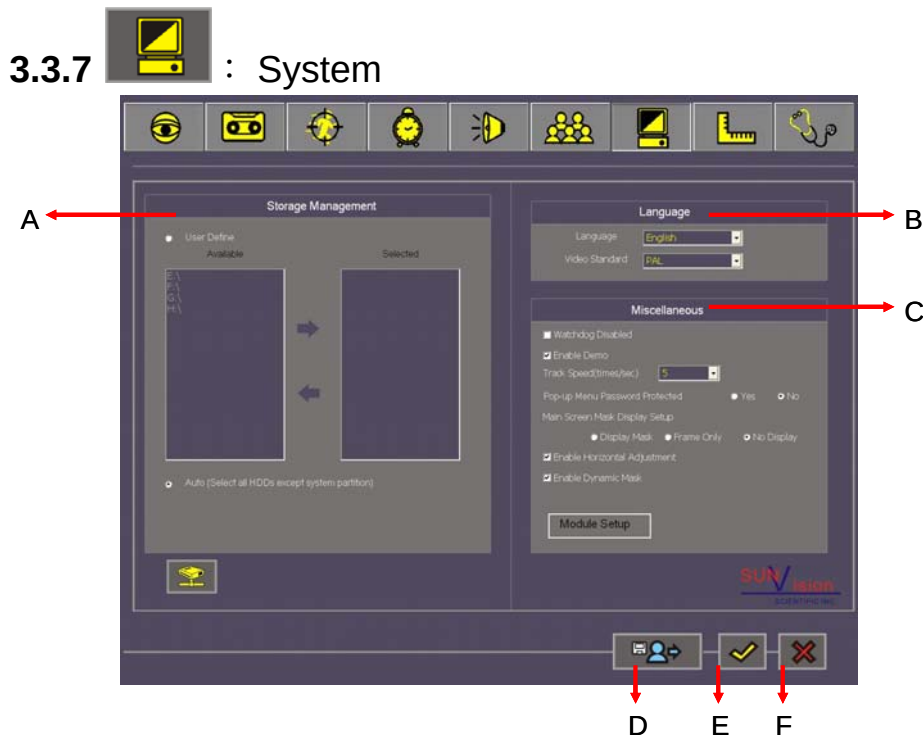


FIG. 3.3.7.1

- A. Arranging storage management :
- User defined :
 - User selects the disks for recording
 - Auto :
 - The system selects the disks for recording automatically. (Any disks except C:)
- B. Language settings :
- 1.Select the language that you want.
 - 2.Select NTSC or Pal
- C. Others :
1. Watchdog : Watchdog setup
 2. Enable demo : Enable demo in replay

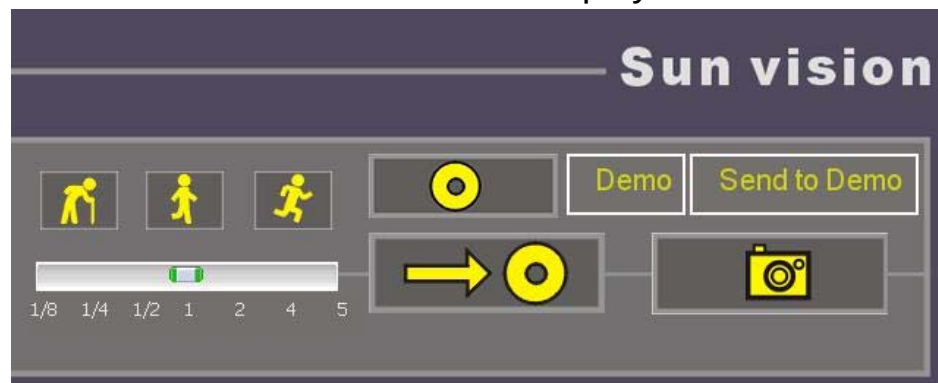


FIG. 3.3.7.2

3. Tracking speed (times/sec): Sets the target tracking frequency

4. Pop-up menu password protection :
At the bottom-right a box called password protection. Select to enable.
5. Main Screen Mask Display Setup:
 - Display Mask: On the main screen, every wide angle view display the mask setting.
 - Frame Only: On the main screen, every wide angle view just display the mask frame setting.
 - No Display: No mask setting display on the main screen.
6. Module Setup
Initial whole the camera modules.
Detail setting please refer the SV101 software installation manual v2.16.

- D.  : Save & Exit
Apply the new parameters and exit
- E.  : Accept
Apply the new parameters
- F.  : Cancel

3.3.8 : Tracking Calibration



FIG. 3.3.8.1

When IGUANA camera module has been installed for the first time or when tracking accuracy needs to be improved, adjustments can be made by this tracking calibration tool.

1. Camera Module Selection

When one video card has been installed in the system, two camera modules are available. When two video cards have been installed in the system, four camera modules are available

2. Wide-angle Camera

Wide-angle Camera view of the selected module.

3. Calibration points

9 calibration points to improve tracking accuracy.

4. Data writing

5. Telescopic Camera

Telescopic Camera view of the selected module.

6. Control panel

How to Use

Step 1: Choose the Calibration Point

Click on the Calibration Point on the wide angle view by using the left mouse button. **The target must have an apparent feature such as a chair, air conditioner, window, tire, or a head light of a car etc. It is better to select a corner of the object, to improve tracking accuracy.**



FIG. 3.3.8.2

Step 2: Aim at the Calibration Point

Use the control panel to aim the center cross of the Telescopic Camera View to the Calibration Point. The control panel has eight directions: up, down, left, right, upper-left, upper-right, lower-left, lower-right and three displacements: fine, medium, and coarse from inner to outer.

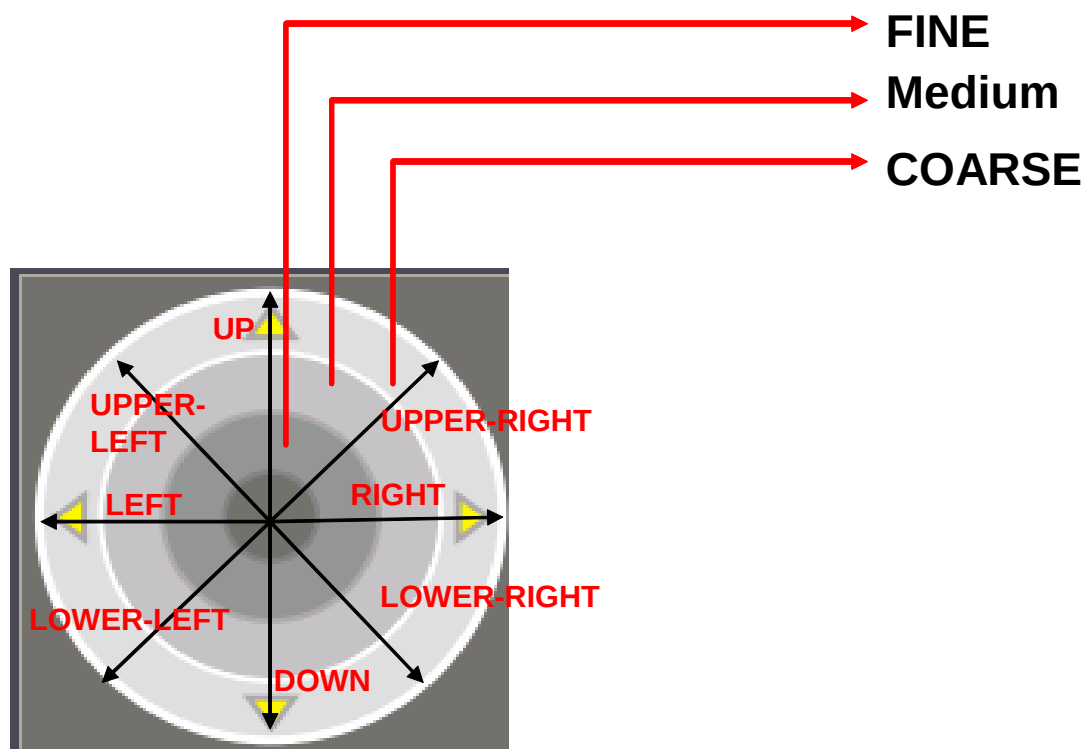


FIG. 3.3.8.3

Step 3: Complete the first Calibration Point

When the center cross of the Telescopic Camera View aligns with the Calibration Point of the Wide Angle Camera View, press the set

button , OK will appear. This means the first Calibration Point is done.



FIG. 3.3.8.4

Step 4: Repeat Step 1~3

Repeat Step1~3 until all 9 Calibration Points are completed with OK.

Notice: Calibration Points are better positioned in all 9 blocks, Up to 2 Calibration Points maximum in one block. Calibration Points should not be too close to the edge.



FIG. 3.3.8.5

Step 5: Test

Click on the Wide Angle Camera View randomly, and see if the target is in the center of the telescopic camera view. If the target is too far from the center of the telescopic camera view, calibration needs to be done again.

Step 6: Save Settings

If calibration is done properly, Click the save button  to complete. This may take 1~2 minutes please wait patiently

Step 7: Settings saved

When saving of the settings has been completed, a message box will show you that saving has completed. Now calibration has been completed.



FIG. 3.3.8.6

Step 8: Test Again

Click on the Wide Angle Camera View randomly, and see if the target is in the center of the telescopic camera view, If the target is too far from the center of the telescopic camera view, repeat step 1~7.

3.3.9 : Test

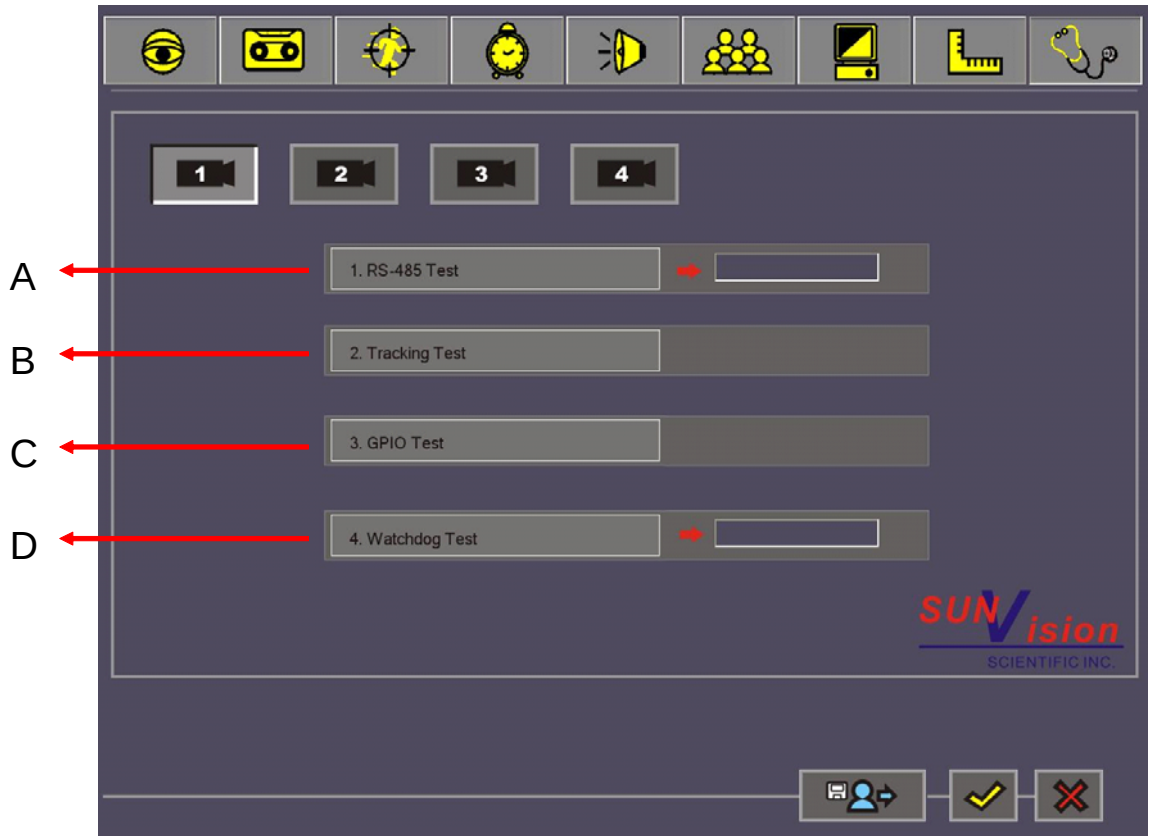


FIG. 3.3.9.1

In this menu varies functions of SV101 can be tested

A. RS-485 Interface Test

If camera modules do not active track properly, please check RS-485 status. Select one module (1-4) and click RS-485 Test button. If RS-485 Interface works normally, module code will be shown. This means RS-485 Interface works normally with this module. If it fails, an error message will be shown.

B. Tracking Test ◦

Click tracking test button. This will open the calibration for tracking page. **Go back to 3.3.8 and follow the calibration instructions to complete the tracking test for a camera module**

C. GPIO alarm

Click GPIO Alarm button to test GPIO alarm I/O setting functions. Follow 3.3.5 GPIO alarm instructions to finish its setting.

D. Watchdog

When you click the Watchdog system reset test button, the system will show a warning message box (restart system) bellow. Click "Yes", The system then executes restart instructions which show Watchdog is functioning normally. Otherwise, a message box

shows a “Failed” message.

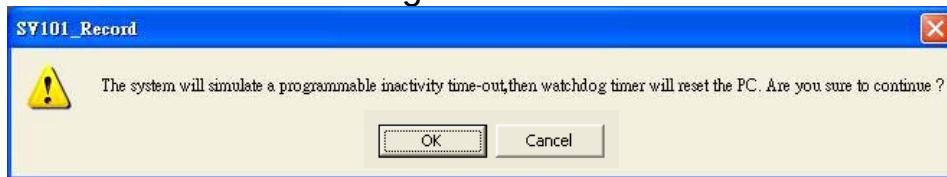


FIG. 3.3.9.2

3.4 Others :

3.4.1 Double-clicking the Mouse Button

If the main menu is displaying in Quad View or 8 View modes, simply move the mouse onto a channel and double-click the left mouse button, then the display will switch to a single View mode of the selected channel.

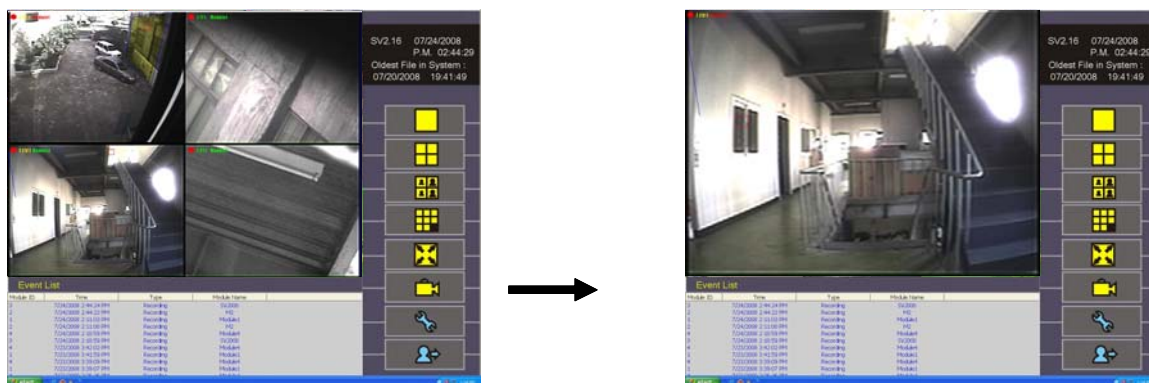


FIG. 3.4.1.1

3.4.2 Using the Right mouse button

Click the right mouse button on the main screen, the recording menu will pop-up automatically.



FIG. 3.4.2.1

If pop-up menu protection has been enabled on the system page. Please type in the account and password.



FIG. 3.4.3.1

- A. Recording: Use the right mouse button and select “Record”, to enable the selected module’s recording. For example: To enable module 2 recording, move the mouse to module 2, click right mouse button, and select “Record”, to enable module 2 recording.



FIG. 3.4.3.2

- B. Stop Recording: Click the mouse right button and select “Stop Recording”, to stop the selected module’s recording.
- C. All Recording: Click the right mouse button and select “All Record”, to enable all modules recording
- D. All stop: Click the right mouse button and select “Stop” to stop all modules from recording. °
- E. Scheduled Recording: Click the right mouse button and select “Schedule Recording”, to enable the selected modules scheduled recording.
- F. Tracking: Click the right mouse button and select “Tracking” to start camera tracking.

- G. Stop Tracking: Click the right mouse button and select “Stop Tracking” to stop camera tracking.

3.4.3 Tips

If the mouse moves over an icon, tips will show up.

3.4.4 Appendix

Important hardware settings: All disks for recording have to be setup as follows

1. Select [my computer] on Windows desktop. Click right mouse button and select [Manage]

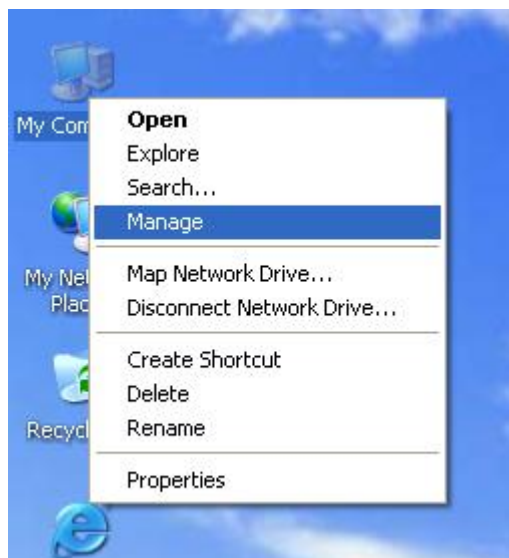


FIG. 3.4.5.1

2. Select [disk management]

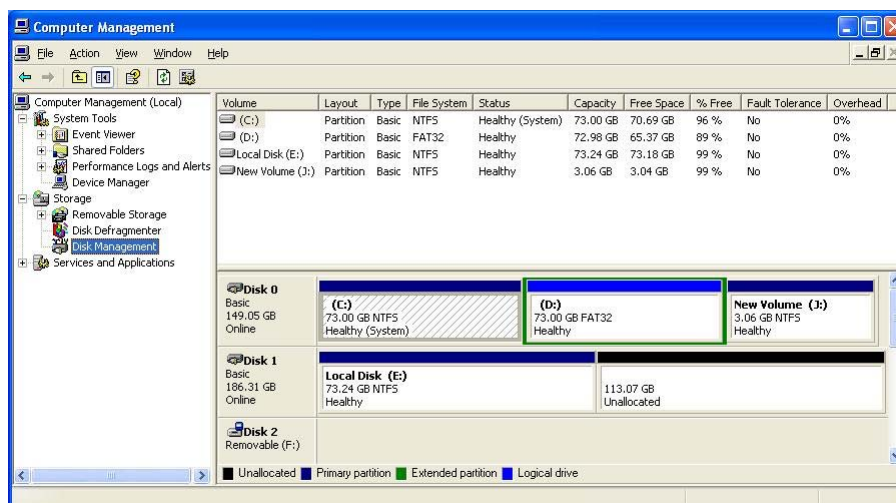


FIG. 3.4.5.2

3. Format disk for recording

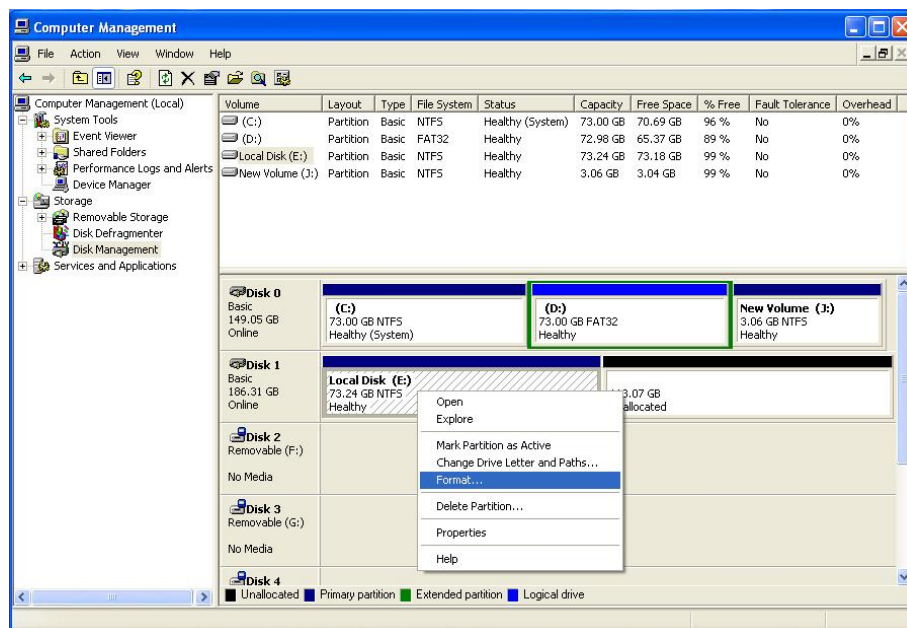


FIG. 3.4.5.3

4.Format mode

5.File system: Please select NTFS

6.File size : Please select 64K

7.Please select quick format

4 Remote Surveillance

Local Server Setting

Note: **Windows XP Professional** is required for the Remote Surveillance to function.

Install IIS (Internet Information Services)

1. Start -> Control Panel -> Add or Remove Programs

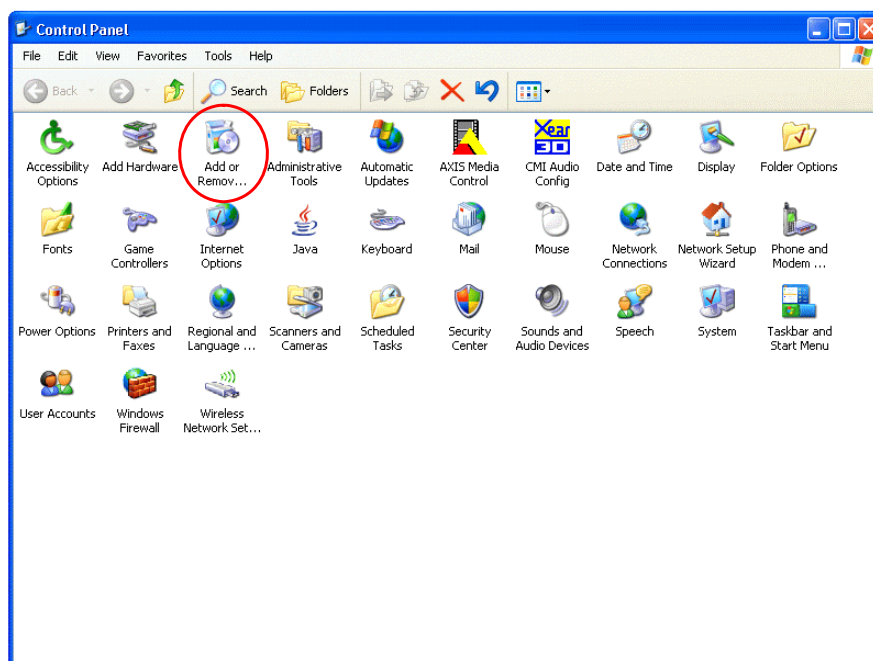


Fig. 4.1.1.1

2. Add/Remove Windows Components

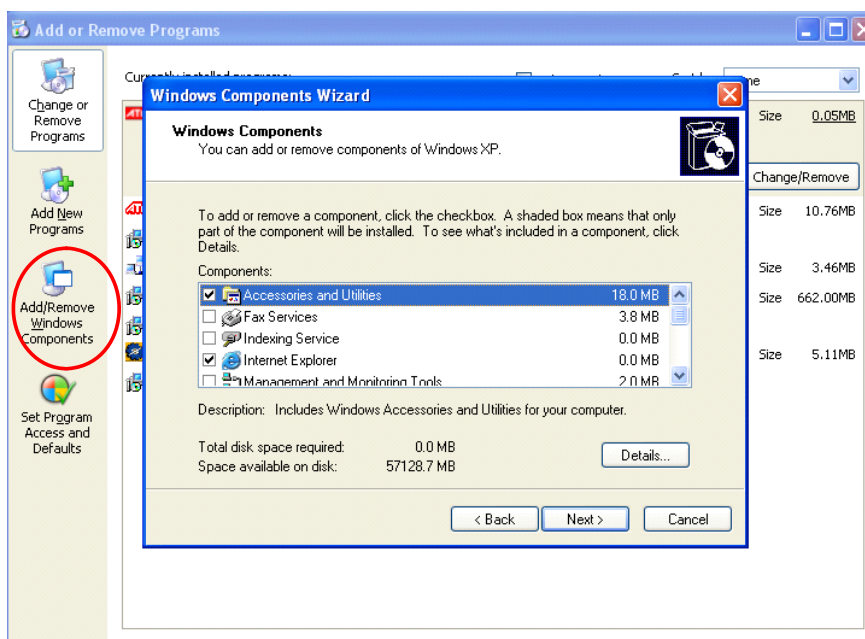


Fig.4.1.1.2

3. Please check Internet Information Services (IIS)
Then please click next

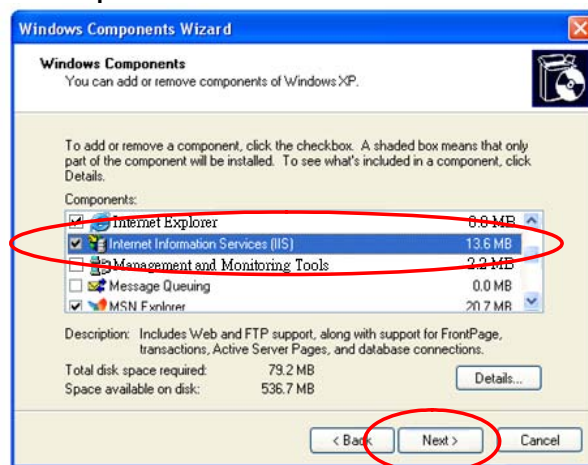


Fig. 4.1.1.3

4. Installation completed



Fig. 4.1.1.4

Firewall Setup

1. Start -> Control Panel -> Windows Firewall

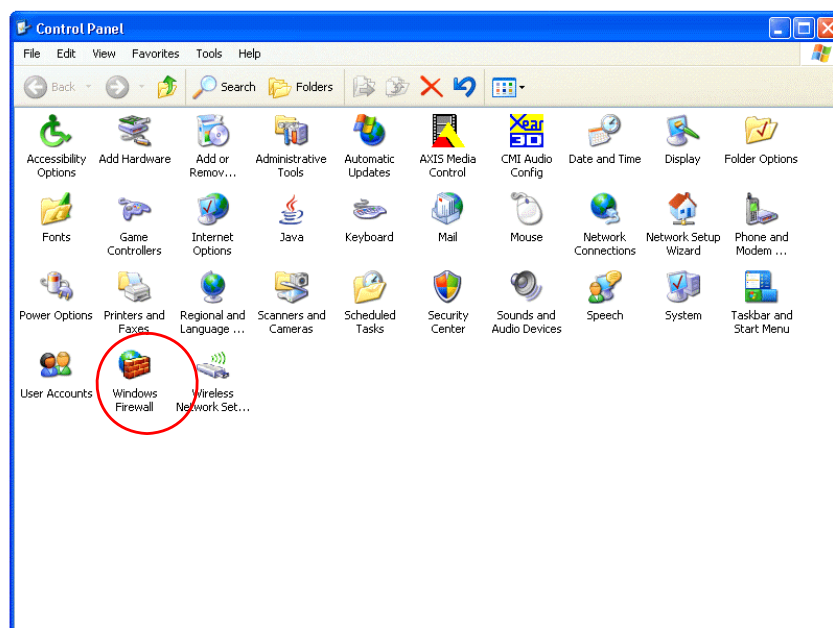


Fig. 4.1.2.1

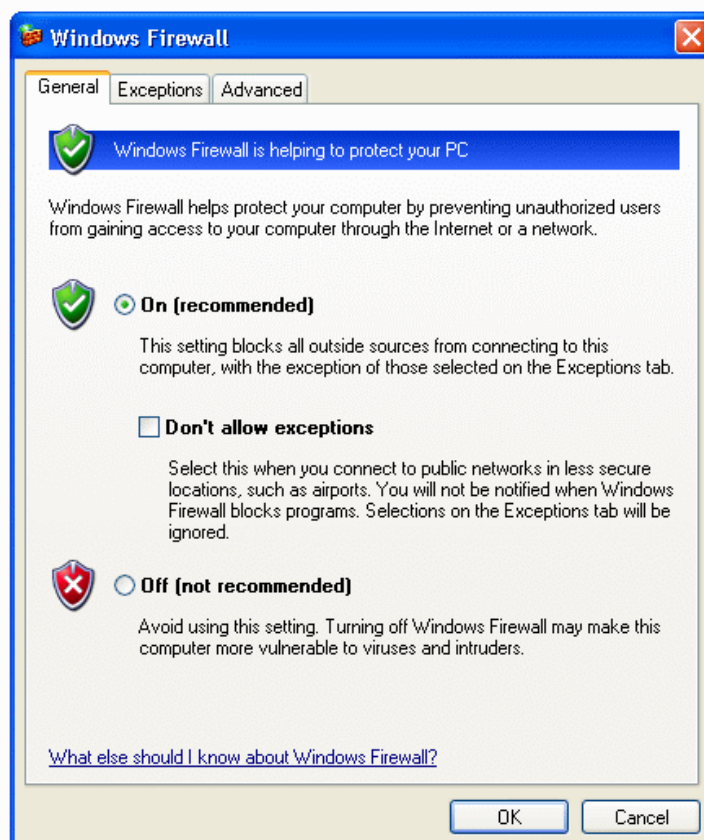


Fig. 4.1.2.2

2. Advanced->Local Area Connection -> Settings

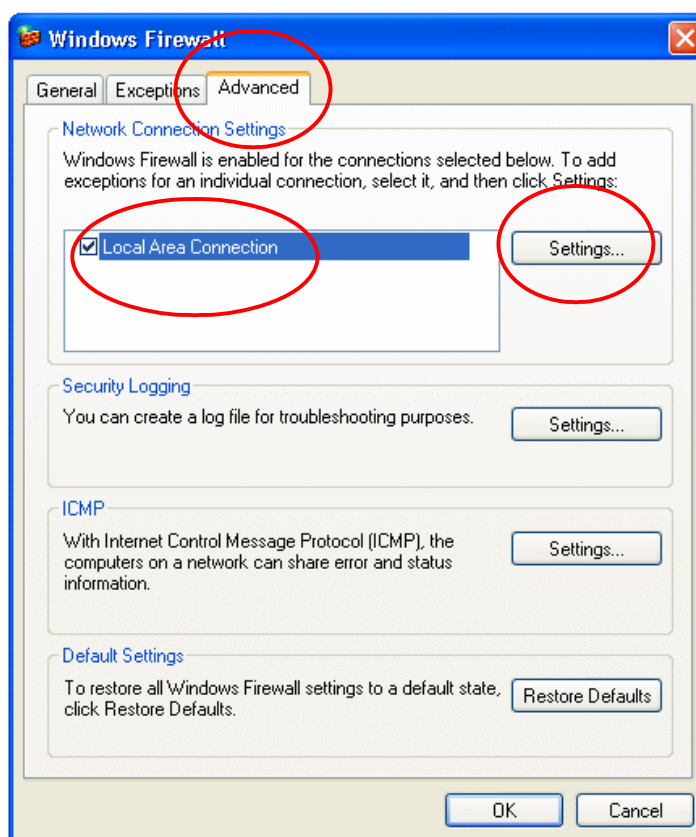


Fig.4.1.2.3

3. Select [Web Server(HTTP)]-> OK -> OK

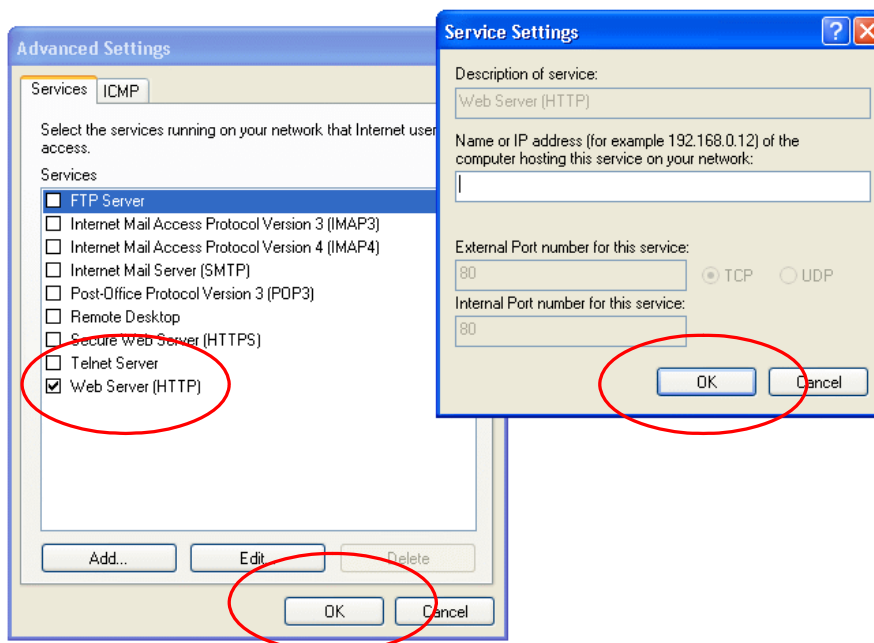


Fig. 4.1.2.4

4. Please execute C:\program files\IGUNNA\COPYWWW.bat (automatically copy "wwwroot" to "C:\inetpub\wwwroot")

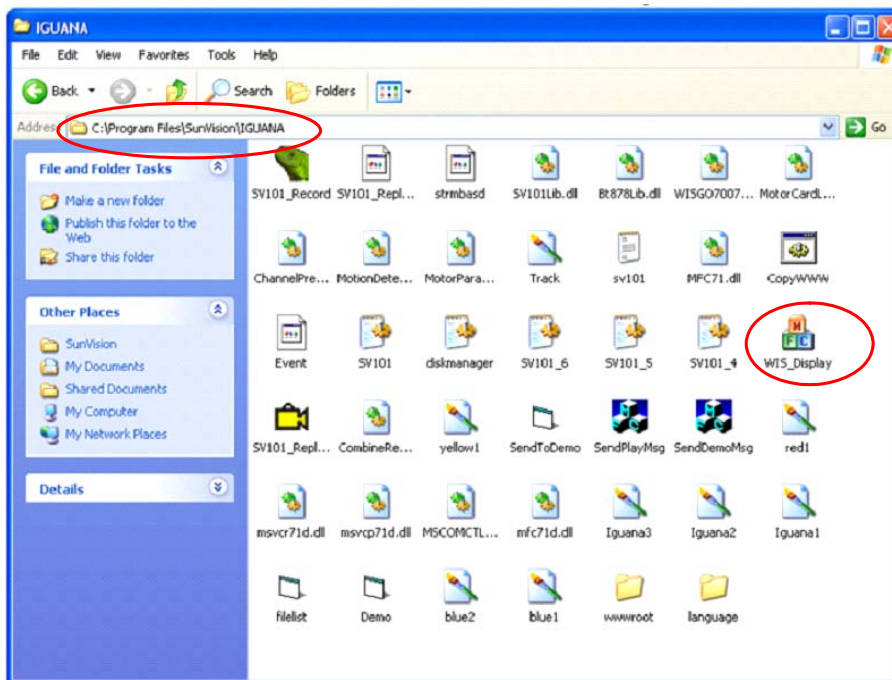


Fig 4.1.2.5

5. Open C:\inetpub\wwwroot\

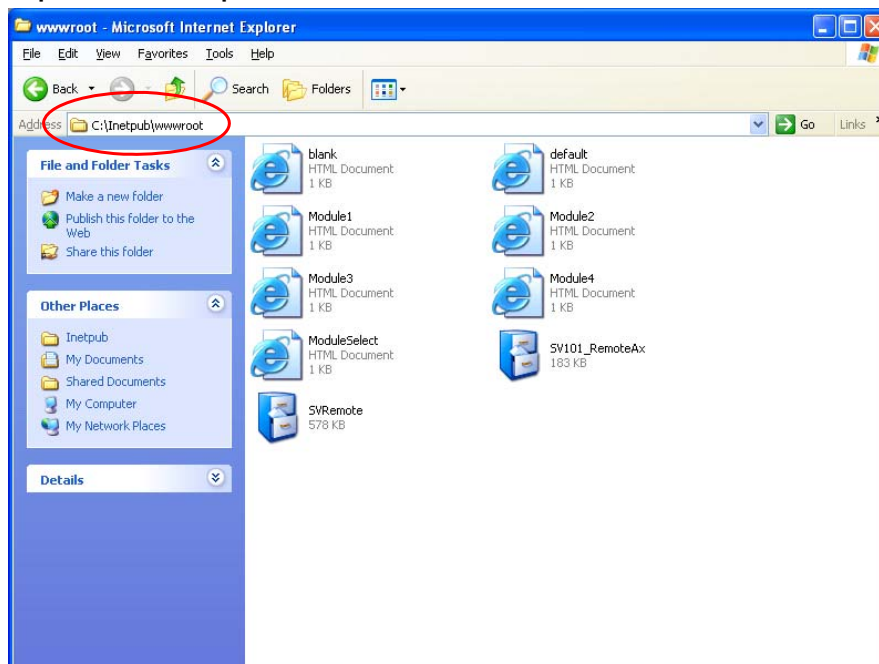


Fig 4.1.2.6

6. On the Module1.htm please click right side of mouse and select [Open with] -> open Notepad

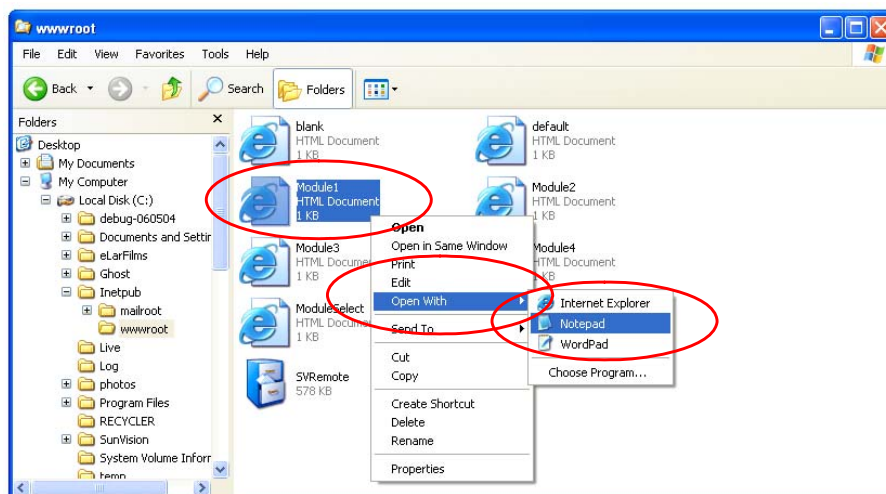


Fig 4.1.2.7

7. Please change the number (127.0.0.1) which is written later on ServerConnectToServer to IP address of your Http Server. Then save.

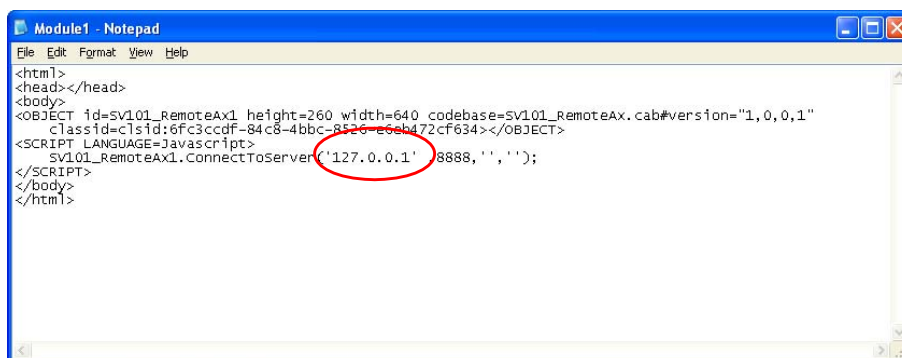


Fig.4.1.2.8

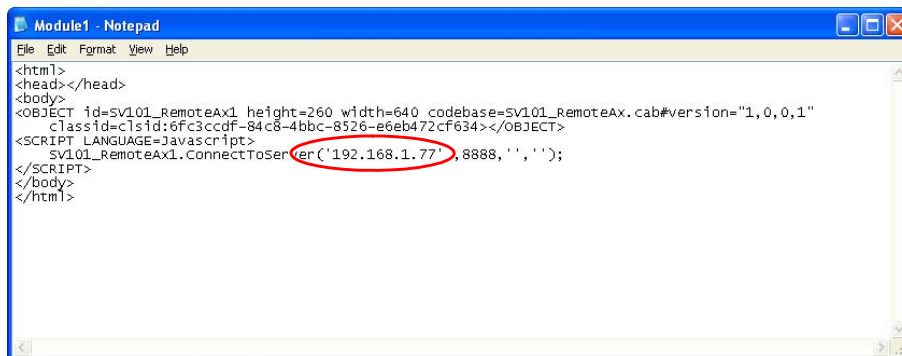


Fig 4.1.2.9



Fig. 4.1.2.10

8. Please proceed to amend IP of Module2-4.htm following 6 and 7

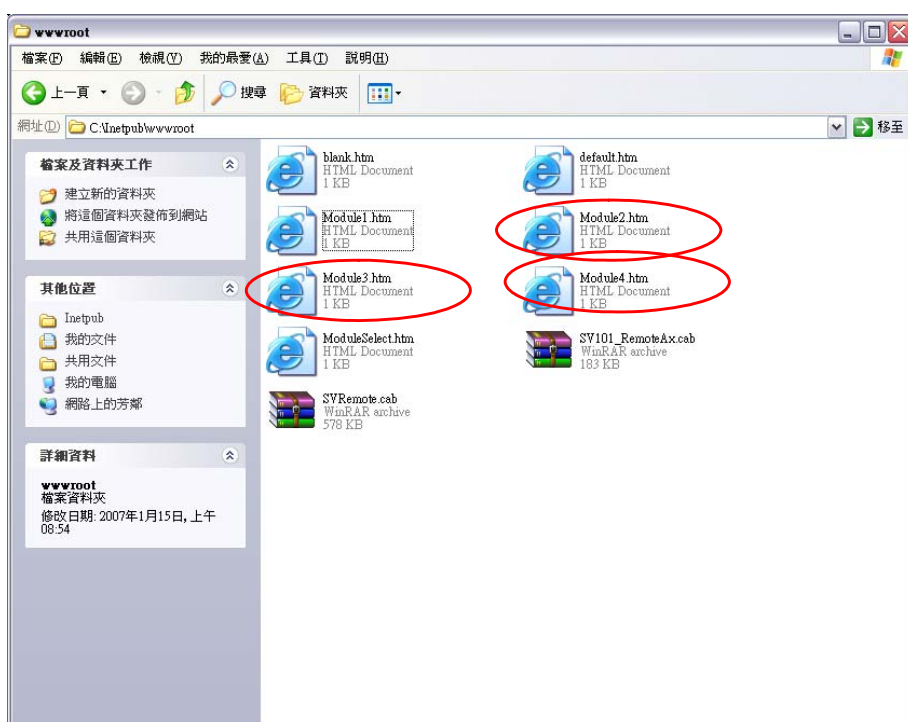


Fig. 4.1.2.11

9. Please execute the IGUANA.exe which is on the desktop and please unblock the firewall for this program.

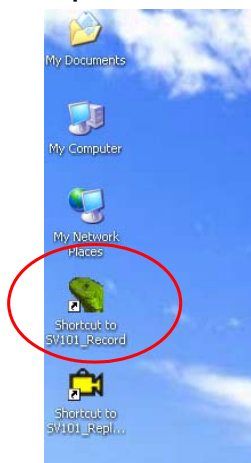


FIG. 4.1.2.10

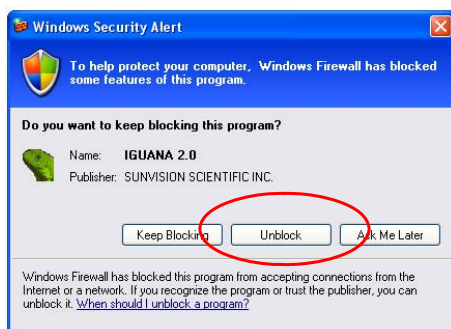


Fig.4.1.2.11

Remote Client Setting: Remote user setting

1. Open IE, Tools ->internet option -> Security

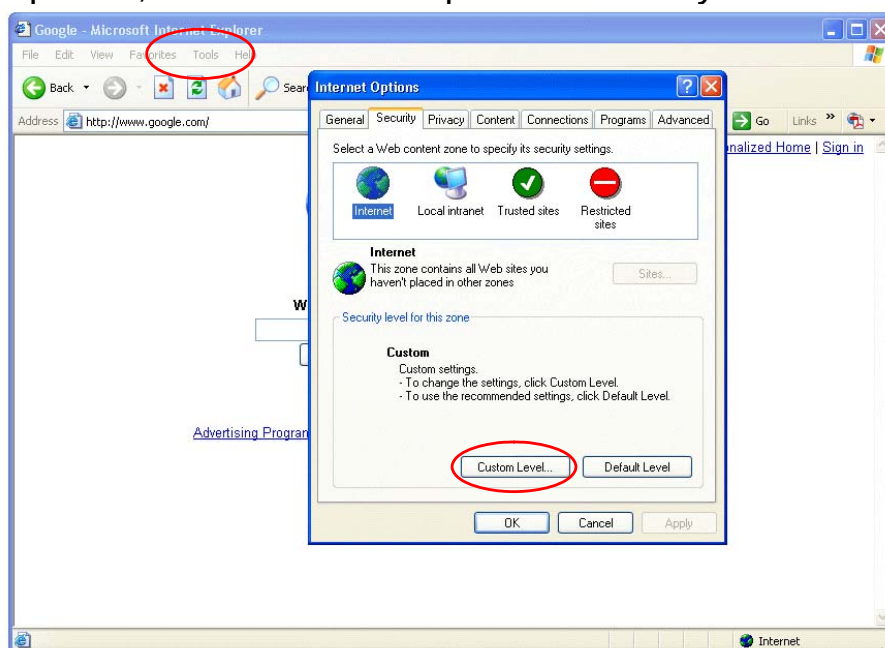


Fig. 4.2.1

2. Custom Level > select Download unsigned ActiveX controls

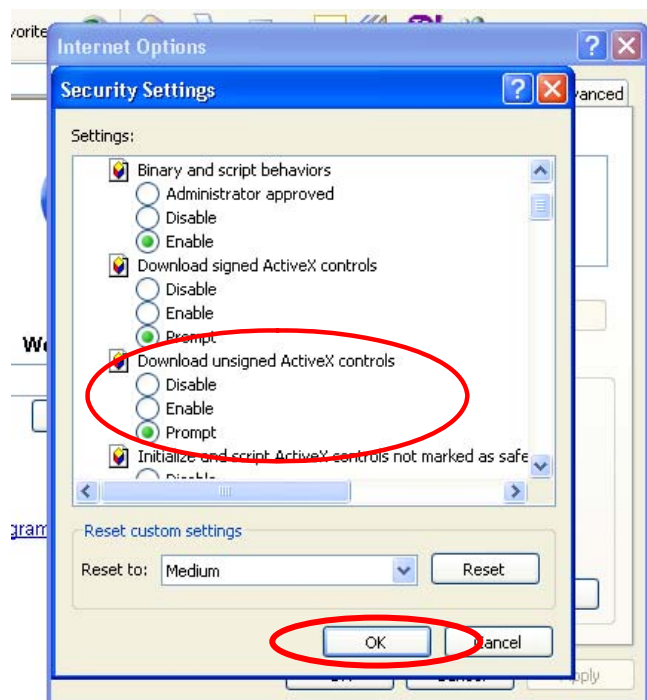


Fig 4.2.2

3. Input your IP address of your HTTP server. Click Module 1 Install SV101_RemoteAx.cab

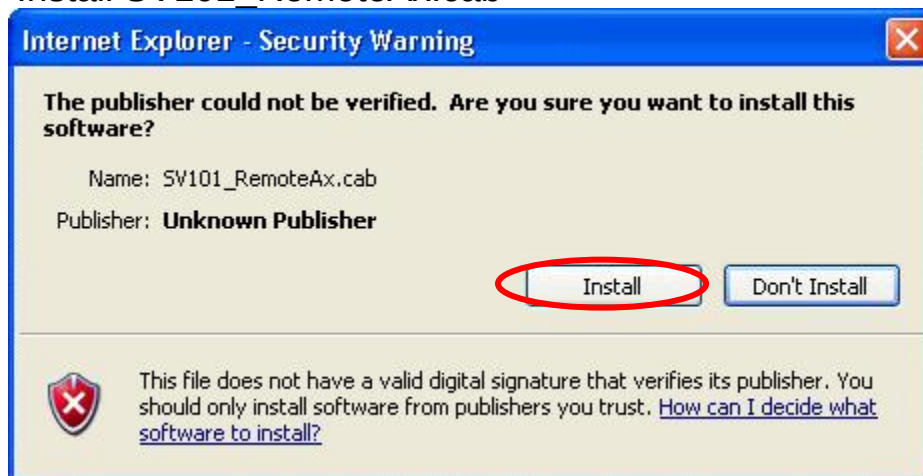


Fig.4.2.3

4. Setting Completed
(Please try with IP 202.39.212.209)

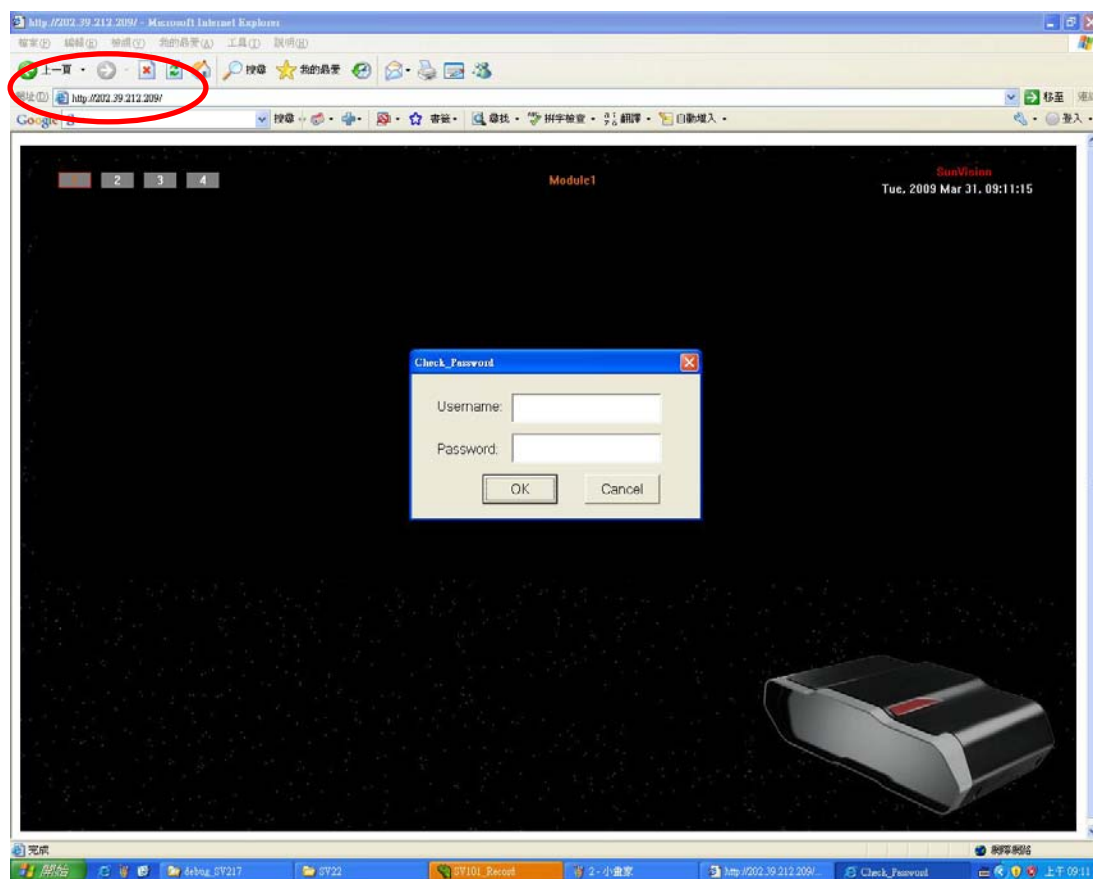


Fig. 4.2.4

Please refer the section 3.3.6  : Account Management to get the user account and password.